



Tier 2 Mathematics Intervention

Module: *Multiplication & Division Fact Strategies (MDFS)*

Teacher Display Masters



The Meadows Center
FOR PREVENTING EDUCATIONAL RISK
THE UNIVERSITY OF TEXAS AT AUSTIN
COLLEGE OF EDUCATION

Mathematics Institute for Learning Disabilities and Difficulties

www.meadowscenter.org

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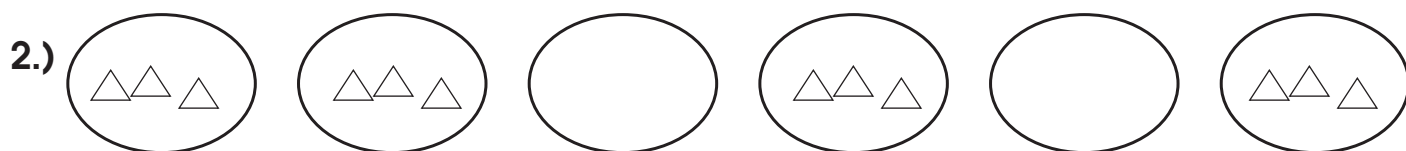
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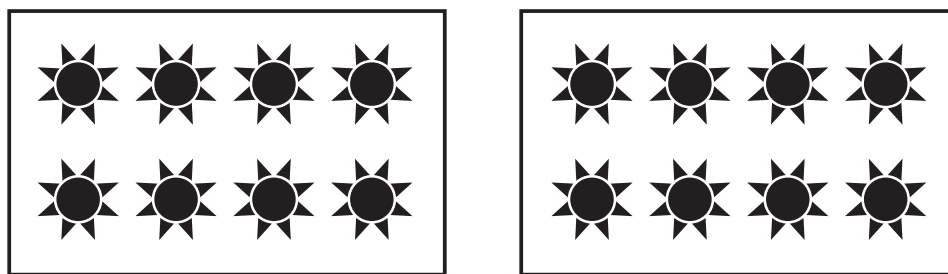
Draw an equal-groups model using pictures or numbers to solve the application problem below.

- 1.) You buy 6 packages of pencils. There are 5 pencils in each package. How many pencils do you have in all?

Complete the equal-groups models.



Write the repeated addition equation and a multiplication equation for the equal-groups model.



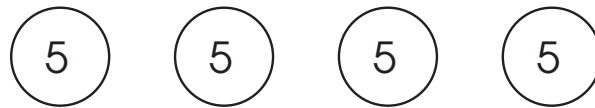
3.) $\underline{\quad} + \underline{\quad} = 16$

4.) $2 \times \underline{\quad} = \underline{\quad}$

Draw an equal-groups model for the problems below.

5.) 3 groups of 6 equals 18

Use the equal-groups model to answer the questions.



6.) How many groups are in the equal-groups model? _____

7.) How many are in each group? _____

8.) Skip count to find the total. _____

9.) Write a multiplication equation.



_____ \times _____ = _____

10.) Write a multiplication equation.

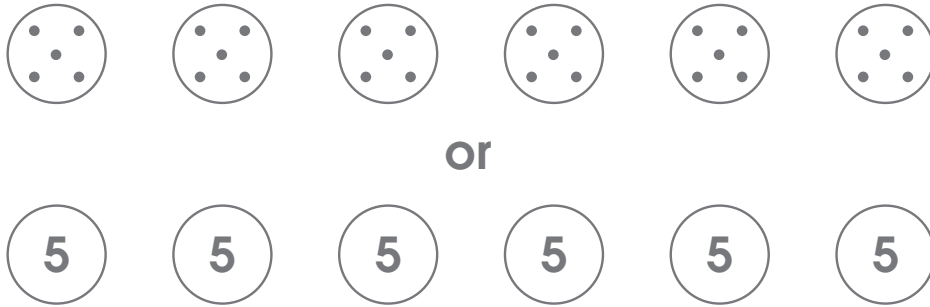
$$4 + 4 + 4 + 4 = 16$$

_____ \times _____ = _____

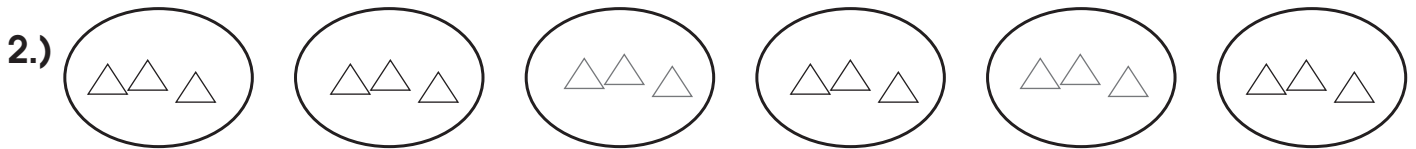


Draw an equal-groups model using pictures or numbers to solve the application problem below.

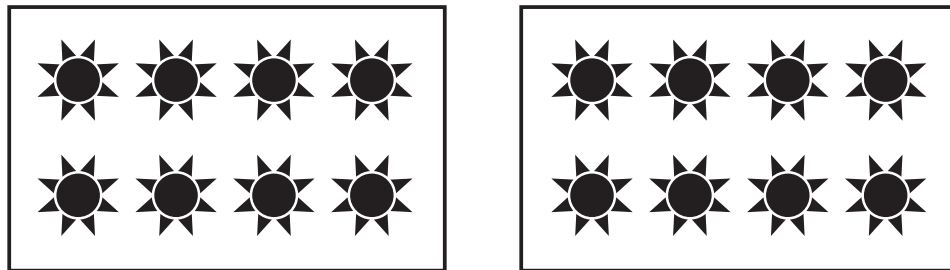
- 1.) You buy 6 packages of pencils. There are 5 pencils in each package. How many pencils do you have in all?



Complete the equal-groups models.



Write the repeated addition equation and a multiplication equation for the equal-groups model.



3.) $\underline{8} + \underline{8} = 16$

4.) $2 \times \underline{8} = \underline{16}$

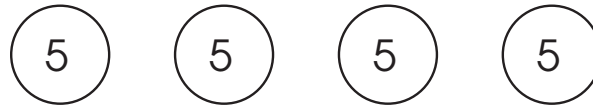


Draw an equal-groups model for the problems below.

5.) 3 groups of 6 equals 18



Use the equal-groups model to answer the questions.



6.) How many groups are in the equal-groups model? 4

7.) How many are in each group? 5

8.) Skip count to find the total. 20

9.) Write a multiplication equation.



7 × 3 = 21 or 3 × 7 = 21

10.) Write a multiplication equation.

$4 + 4 + 4 + 4 = 16$

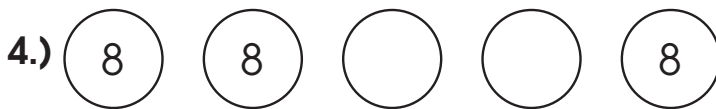
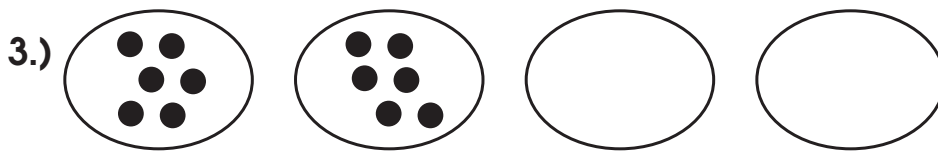
4 × 4 = 16

Solve the problem.

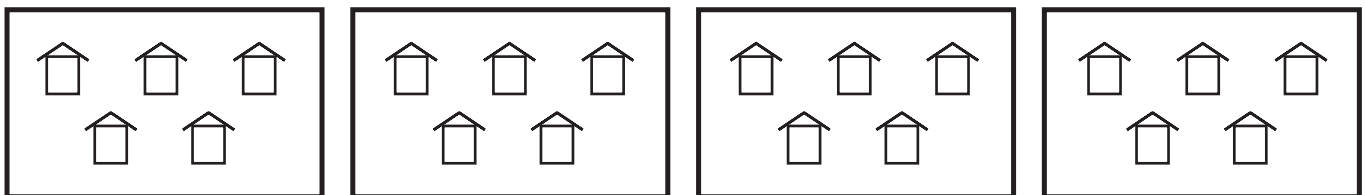
1.) $3 + 3 + 3 = \underline{\hspace{2cm}}$

2.) 15, 20, 25, $\underline{\hspace{2cm}}$, $\underline{\hspace{2cm}}$, 40

Complete the equal-groups models.



Write the repeated addition equation and a multiplication equation for the equal-groups model.



5.) $5 + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{2cm}}$

6.) $\underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{2cm}}$



7.) $\underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = 30$

8.) $\underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{2cm}}$

Draw an equal-groups model for the problems below.

9.) $3 \times 10 = 30$

10.) Jay has 4 packages of collectors cards. Each package has 5 cards. How many total collectors cards does Jay have?

- A 15 cards
- B 9 cards
- C 20 cards
- D 1 card

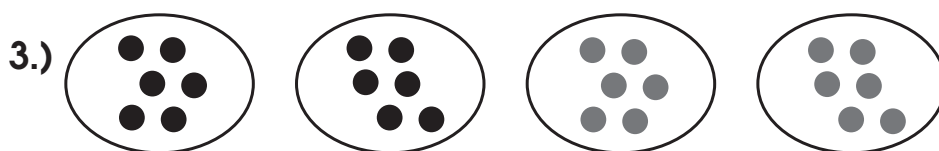


Solve the problem.

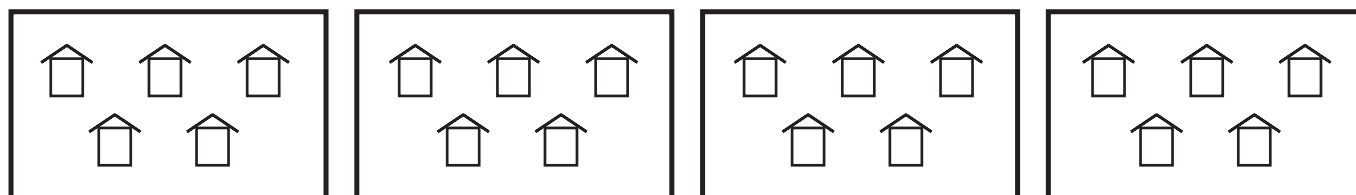
1.) $3 + 3 + 3 = \underline{9}$

2.) 15, 20, 25, 30, 35, 40

Complete the equal-groups models.



Write the repeated addition equation and a multiplication equation for the equal-groups model.



5.) $5 + \underline{5} + \underline{5} + \underline{5} = \underline{20}$

6.) $\underline{5} \times \underline{4} = \underline{20}$ or $4 \times 5 = 20$



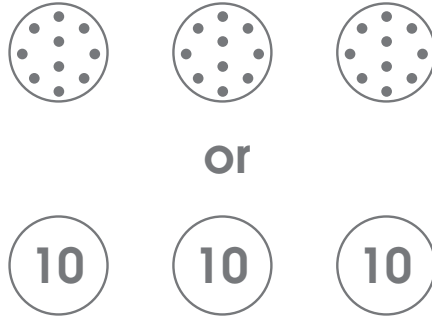
7.) $\underline{6} + \underline{6} + \underline{6} + \underline{6} + \underline{6} = 30$

8.) $\underline{6} \times \underline{5} = \underline{30}$ or $5 \times 6 = 30$



Draw an equal-groups model for the problems below.

9.) $3 \times 10 = 30$



10.) Jay has 4 packages of collectors cards. Each package has 5 cards. How many total collectors cards does Jay have?

- A 15 cards
- B 9 cards
- ☒ C 20 cards
- D 1 card

Use the counters to arrange in an array. Then draw the array.

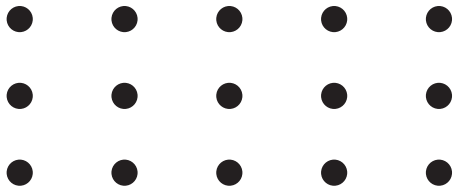
There are 24 desks in a classroom. Your teacher wants to arrange them in equal rows. What are some ways to arrange the desks so that the 24 desks are in equal rows and columns?

Draw an array.

What is the multiplication equation that matches the array of desks?

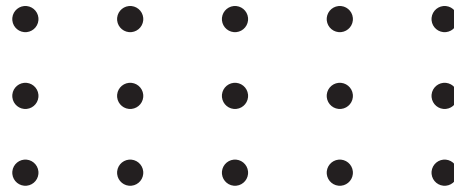
Complete the 3-by-5 arrays. Use the arrays to fill in the blanks.

1.) Circle the rows in the array.



_____ rows of _____

Circle the columns in the array.



_____ columns of _____

$$\text{_____} \times \text{_____} = \text{_____} \times \text{_____}$$

Use the arrays below to fill in the blanks.

2.) Circle the rows in the array.



_____ rows of _____

Circle the columns in the array.



_____ columns of _____

$$\text{_____} \times \text{_____} = \text{_____} \times \text{_____}$$

3.) Draw an array with 4 rows and a total of 16 objects.

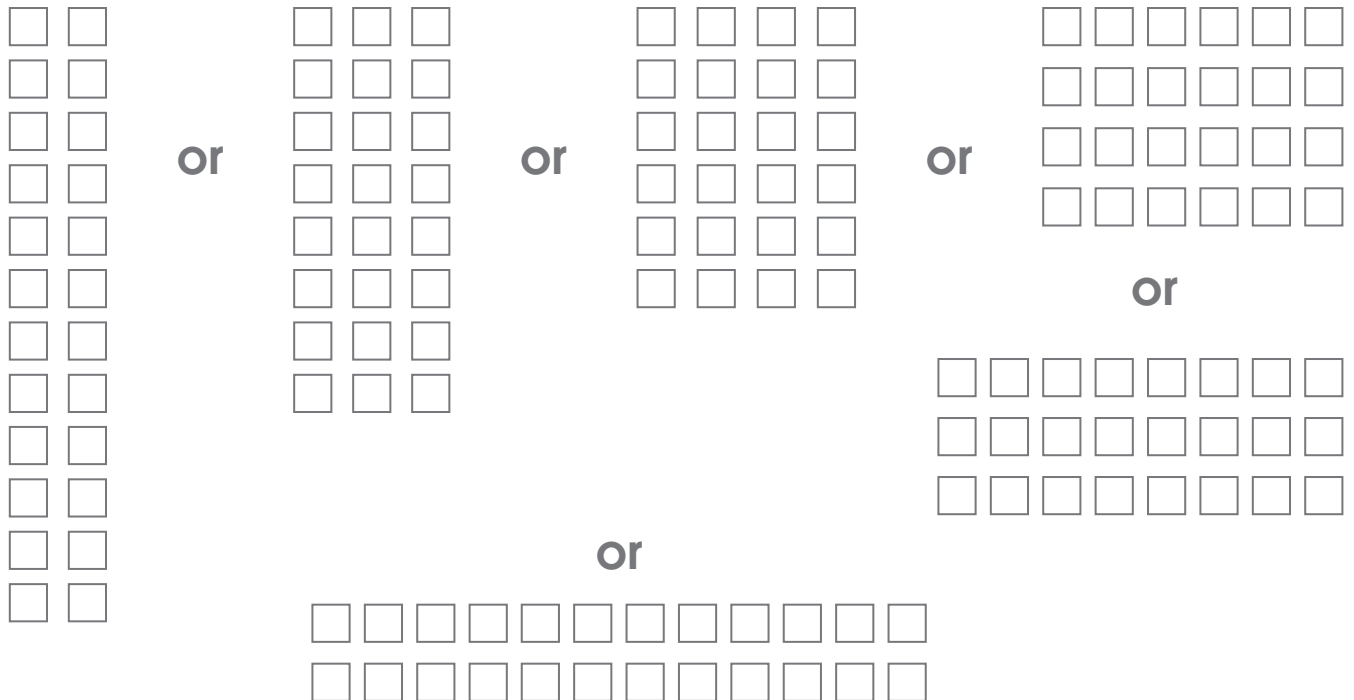
How many columns are in this array? _____

Multiplication equation _____ \times _____ = _____

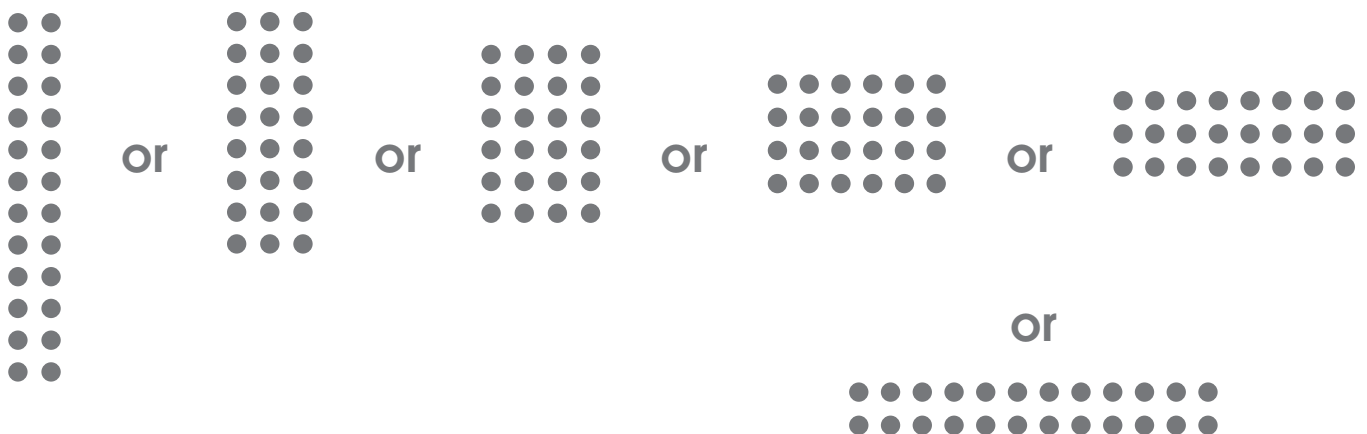


Use the counters to arrange in an array. Then draw the array.

There are 24 desks in a classroom. Your teacher wants to arrange them in equal rows. What are some ways to arrange the desks so that the 24 desks are in equal rows and columns?



Draw an array.



What is the multiplication equation that matches the array of desks?

answers will vary

$$12 \times 2 = 24, 2 \times 12 = 24,$$

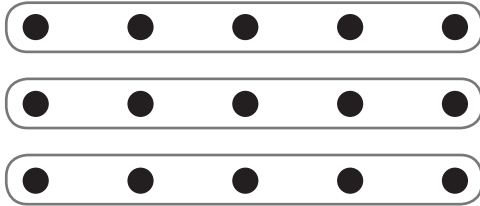
$$8 \times 3 = 24, 3 \times 8 = 24,$$

$$6 \times 4 = 24, 4 \times 6 = 24$$

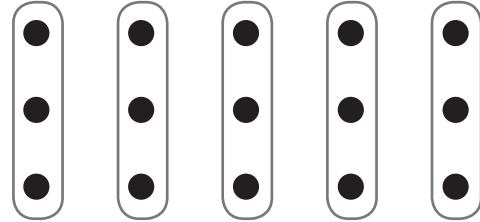


Complete the 3-by-5 arrays. Use the arrays to fill in the blanks.

1.) Circle the rows in the array.



Circle the columns in the array.



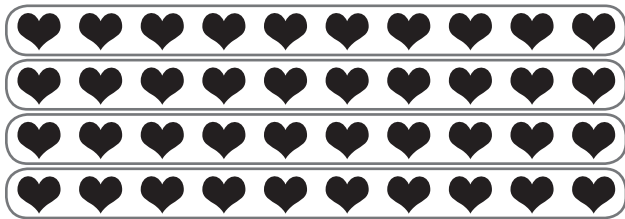
3 rows of 5

5 columns of 3

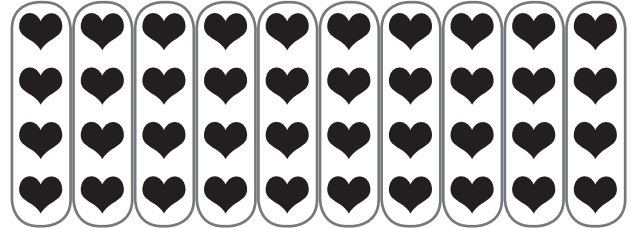
$$\underline{3} \times \underline{5} = \underline{5} \times \underline{3}$$

Use the arrays below to fill in the blanks.

2.) Circle the rows in the array.



Circle the columns in the array.

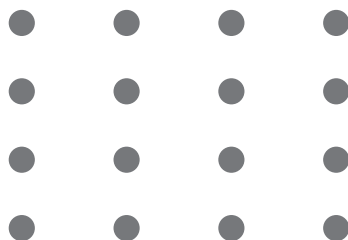


4 rows of 10

10 columns of 4

$$\underline{4} \times \underline{10} = \underline{10} \times \underline{4}$$

3.) Draw an array with 4 rows and a total of 16 objects.

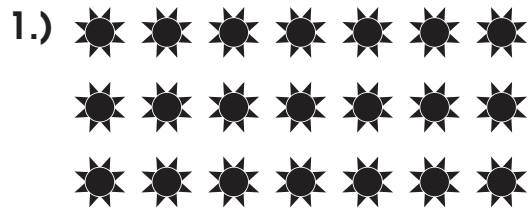


How many columns are in this array? 4

Multiplication equation 4 × 4 = 16

Circle the rows in the array.

Draw a second array to match the one on the left. Circle the columns in the array.



2.)

3.) _____ rows of _____

4.) _____ columns of _____

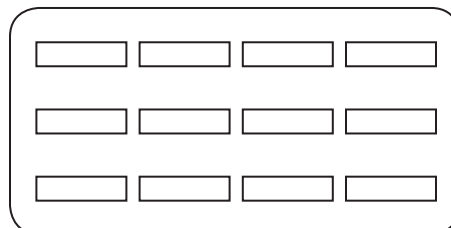
5.) _____ \times _____ = _____ \times _____

6.) Draw an array with 6 rows and a total of 18 objects.

7.) How many columns in this array? _____

8.) Multiplication equation _____ \times _____ = _____

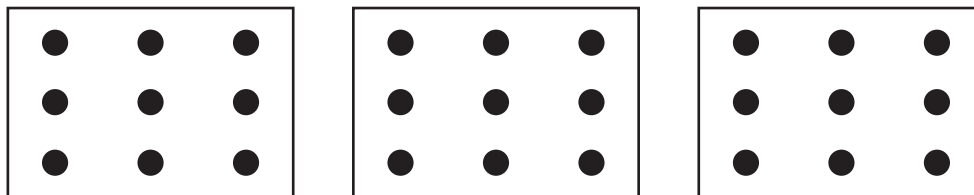
9.) Marie buys a package of gum. When she opens the package, she recognizes that the gum is arranged in an array.



Write a multiplication equation to represent Marie's gum package.

_____ \times _____ = _____

Write a repeated addition equation and a multiplication equation for the equal-groups models.



10.) $\underline{\quad} + \underline{\quad} + \underline{\quad} = 27$

11.) $\underline{\quad} \times \underline{\quad} = 27$

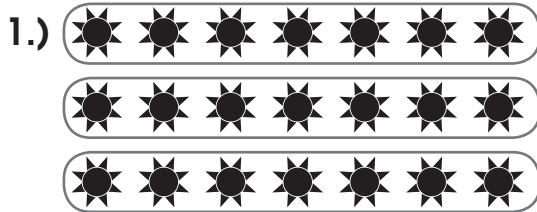


12.) $\underline{\hspace{10em}} = 42$

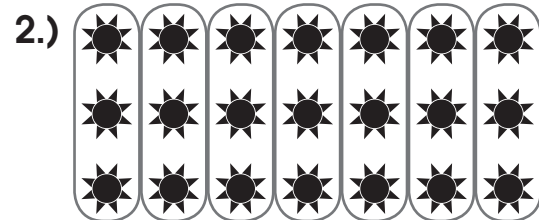
13.) $\underline{\quad} \times 7 = 42$



Circle the rows in the array.



Draw a second array to match the one on the left. Circle the columns in the array.

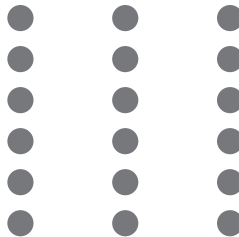


3.) 3 rows of 7

4.) 7 columns of 3

5.) 3 × 7 = 7 × 3

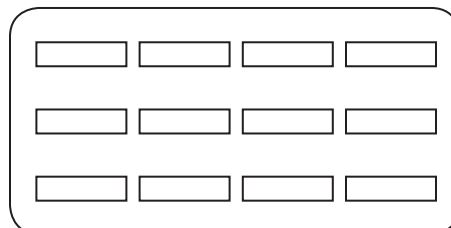
6.) Draw an array with 6 rows and a total of 18 objects.



7.) How many columns in this array? 3

8.) Multiplication equation 6 × 3 = 18 or 3 × 6 = 18

9.) Marie buys a package of gum. When she opens the package, she recognizes that the gum is arranged in an array.

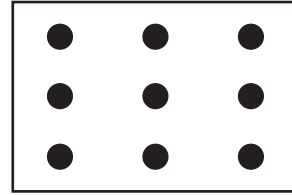
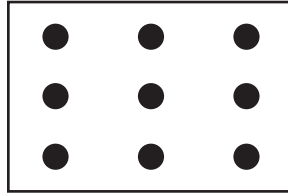
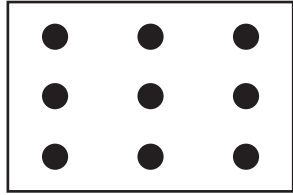


Write a multiplication equation to represent Marie's gum package.

3 × 4 = 12 or 4 × 3 = 12



Write a repeated addition equation and a multiplication equation for the equal-groups models.



10.) $\underline{9} + \underline{9} + \underline{9} = 27$

11.) $\underline{9} \times \underline{3} = 27$ or $3 \times 9 = 27$



12.) $\underline{7 + 7 + 7 + 7 + 7 + 7 + 7} = 42$

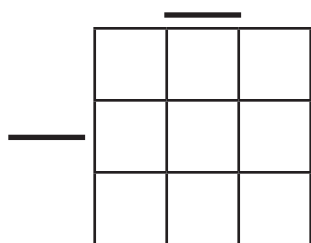
13.) $\underline{7} \times 7 = 42$

Use graph paper to draw an area model to solve.

- Jennifer plants 6 rows of pepper plants with 4 plants in each row.
How many pepper plants did she plant altogether?

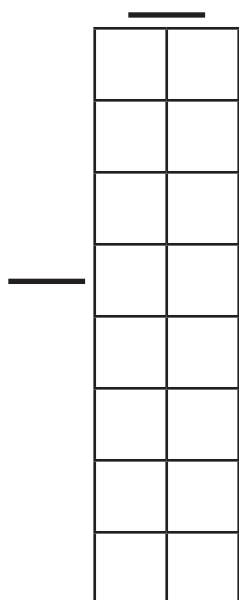


For each area model, label the number of rows and columns.
 Write the repeated addition and multiplication equation.



2.) Addition: $3 + \underline{\quad} + \underline{\quad} = 9$

3.) Multiplication: $\underline{\quad} \times 3 = \underline{\quad}$



4.) Addition: $\underline{\hspace{4cm}}$

5.) Multiplication: $\underline{\hspace{4cm}}$

6.) On graph paper, draw an area model with 10 square units as the area.



7.) What is the length and width of the rectangle you drew?

8.) Write an addition equation for the rectangle you drew.

9.) Write a multiplication equation for the rectangle you drew.

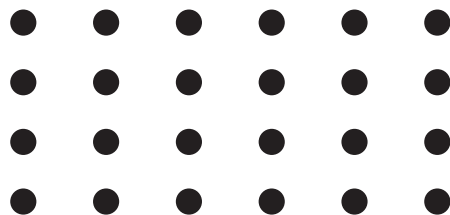
10.) A calendar has 7 columns and 5 rows. How many squares are on a calendar? Draw an area model to solve this problem.

- A** 30 squares **B** 40 squares **C** 12 squares **D** 35 squares

Write the multiplication equation.



11.) _____



12.) _____



Use graph paper to draw an area model to solve.

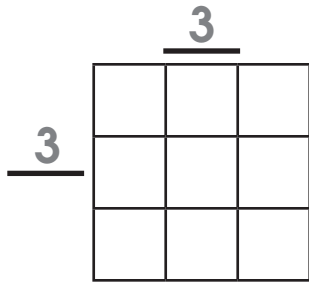
- 1.) Jennifer plants 6 rows of pepper plants with 4 plants in each row.
How many pepper plants did she plant altogether?

24 pepper plants



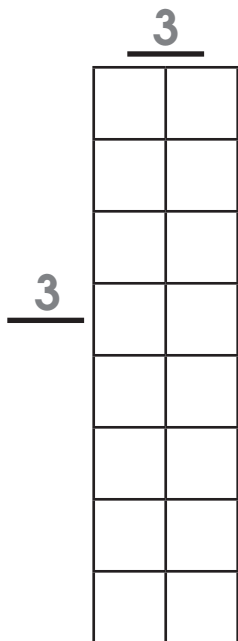


For each area model, label the number of rows and columns.
Write the repeated addition and multiplication equation.



2.) Addition: $3 + \underline{3} + \underline{3} = 9$

3.) Multiplication: $\underline{3} \times 3 = \underline{9}$

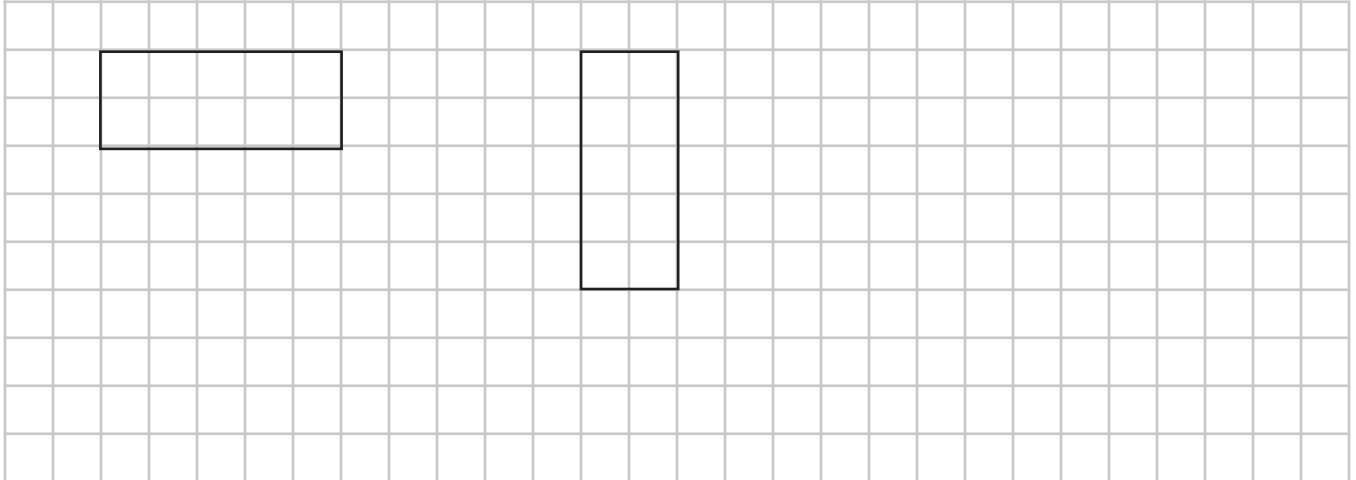


4.) Addition: $\underline{2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 = 16}$
or $\underline{8 + 8 = 16}$

5.) Multiplication: $\underline{8 \times 2 = 16}$
or $\underline{2 \times 8 = 16}$



6.) On graph paper, draw an area model with 10 square units as the area.



7.) What is the length and width of the rectangle you drew?

5×2 or 2×5

8.) Write an addition equation for the rectangle you drew.

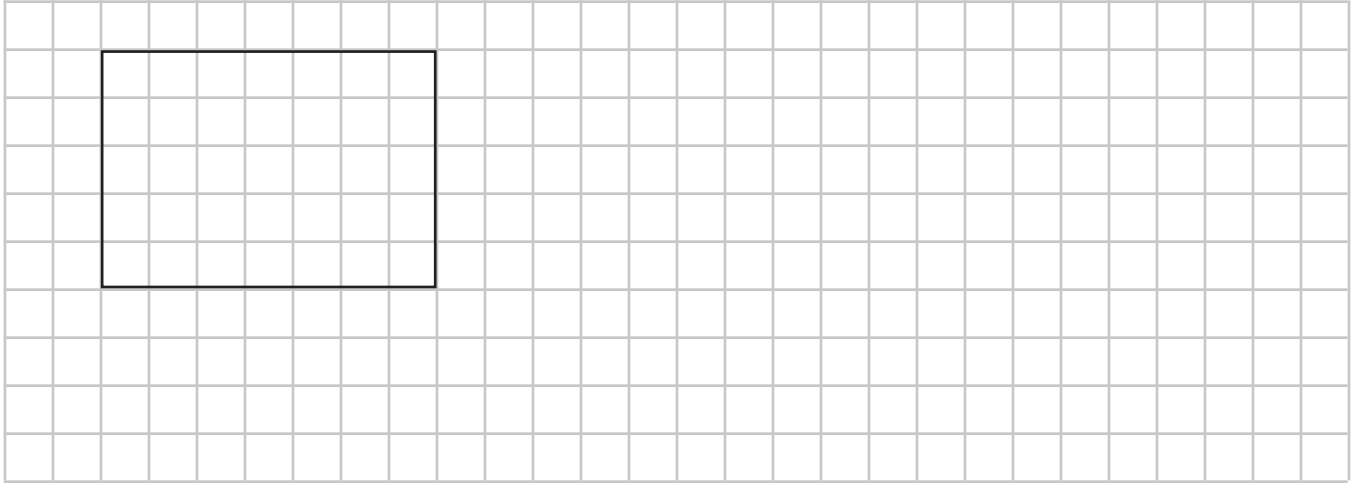
$2 + 2 + 2 + 2 + 2 = 10$ or $5 + 5 = 10$

9.) Write a multiplication equation for the rectangle you drew.

$2 \times 5 = 10$ or $5 \times 2 = 10$



- 10.) A calendar has 7 columns and 5 rows. How many squares are on a calendar? Draw an area model to solve this problem.

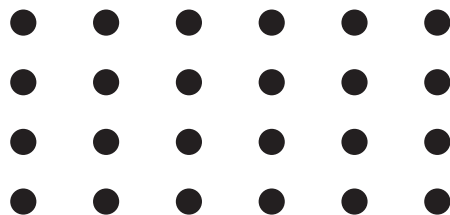


- A 30 squares B 40 squares C 12 squares **D 35 squares**

Write the multiplication equation.



- 11.) $7 \times 4 = 28$ or $4 \times 7 = 28$



- 12.) $4 \times 6 = 24$ or $6 \times 4 = 24$

Models of Multiplication

Equal-groups model

$$6 \times 3$$

Models of Multiplication

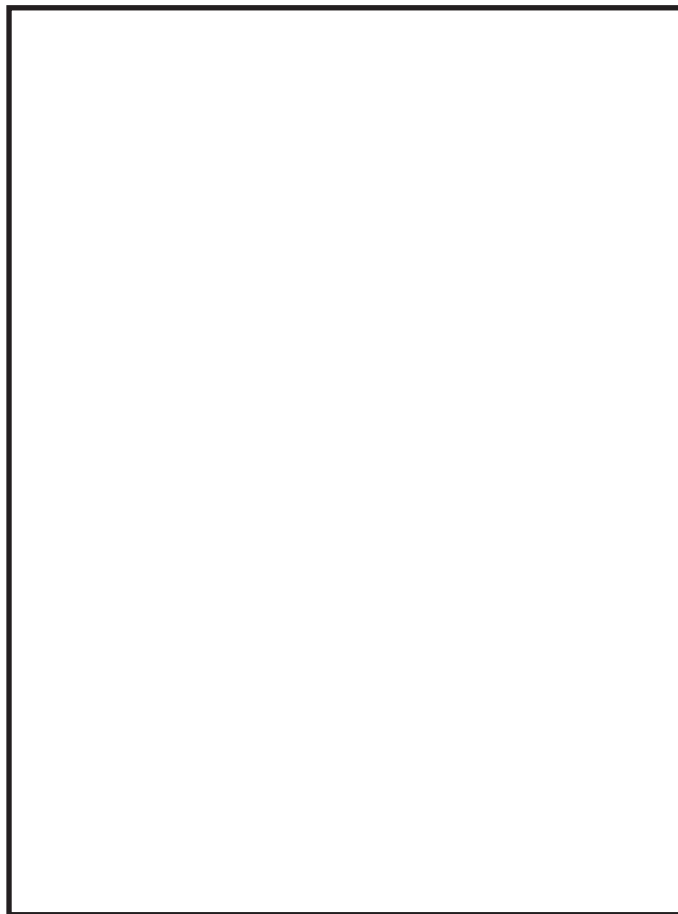
Array

$$6 \times 3$$

Models of Multiplication

Area model

$$6 \times 3$$



Choose a model to represent the following multiplication problem. Solve.

1.) 8 objects in 8 group

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

Solve using an equal-groups model.

2.) 3×5

Solve using an array model.

3.) 2×8

Solve using an area model.

4.) 6×3

Use a model of your choice to solve.

- 5.) Mrs. Vine needs a classroom for her 28 students. Each student will need a desk. In room 203 there are 6 rows of 5 desks. Are there enough desks for Mrs. Vine's class? Draw a model to explain your answer.

What is this question asking you to find? _____



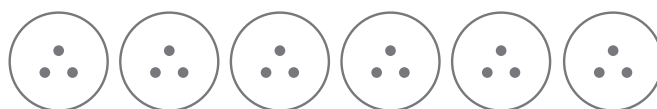
Models of Multiplication

Equal-groups model

$$6 \times 3$$



or



or



or





Models of Multiplication

Array

$$6 \times 3$$



or





Models of Multiplication

Area model

$$6 \times 3$$

or



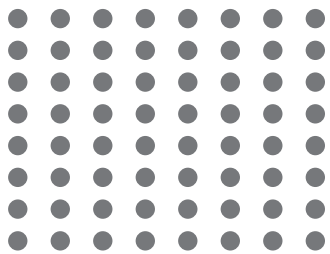
Choose a model to represent the following multiplication problem. Solve.

1.) 8 objects in 8 group

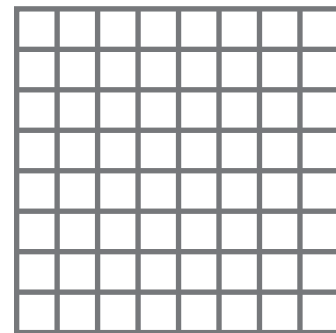
$$\underline{8} \times \underline{8} = \underline{64}$$



or



or



Solve using an equal-groups model.

2.) $3 \times 5 = 15$



or



or

or



or



Solve using an array model.

3.) $2 \times 8 = 16$



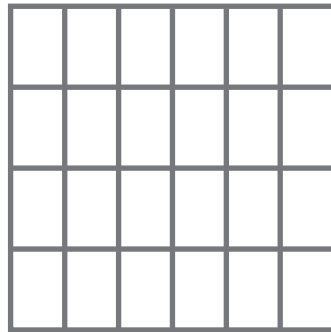
or



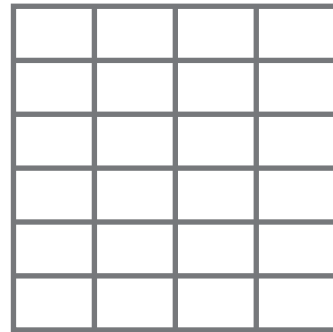


Solve using an area model.

4.) $6 \times 3 = 18$



or



Use a model of your choice to solve.

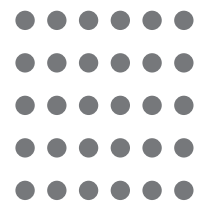
- 5.) Mrs. Vine needs a classroom for her 28 students. Each student will need a desk. In room 203 there are 6 rows of 5 desks. Are there enough desks for Mrs. Vine's class? Draw a model to explain your answer.



or

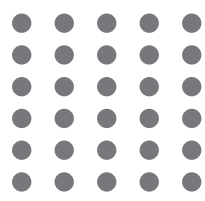


or



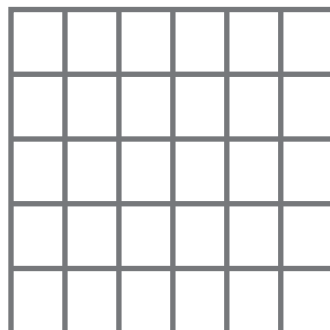
30 desks

or



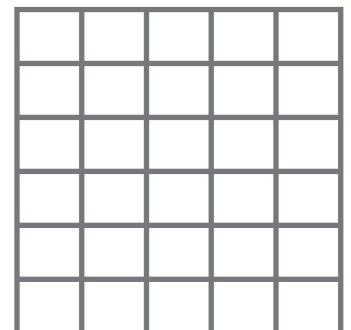
30 desks

or



30 desks

or



30 desks

What is this question asking you to find? Are there enough desks
for 28 students? Yes there are enough desks.

STOP



Solve using an equal-groups model and an array model.

$$6 \times 3$$

1.) Equal-groups model

2.) Array model

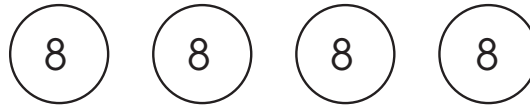
Solve using an area model.

3.) 2×5

4.) Draw an array with 5 rows and a total of 20 dots.

5.) How many columns are in this array? _____

Use the equal-groups model to answer the questions.



6.) How many groups are above? _____

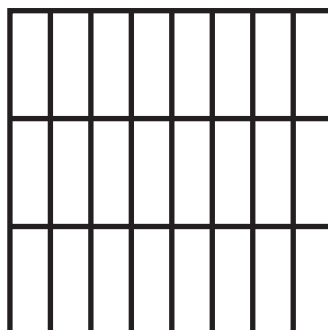
7.) How many are in each group? _____

8.) _____ \times _____ = _____

9.) There are 25 books on the floor in Dominic's room. His bookcase has 5 shelves. How many books will be on each shelf if he puts an equal number per shelf?

- A 5 books per shelf
- B 30 books per shelf
- C 4 books per shelf
- D 20 books per shelf

Write a repeated addition equation and a multiplication equation for the equal-groups model.



10.) Repeated addition: _____

11.) Multiplication: _____ \times _____ = _____



Solve using an equal-groups model and an array model.

$$6 \times 3 = 18$$

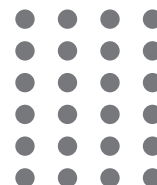
1.) Equal-groups model



2.) Array model

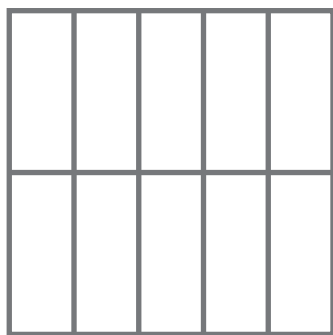


or

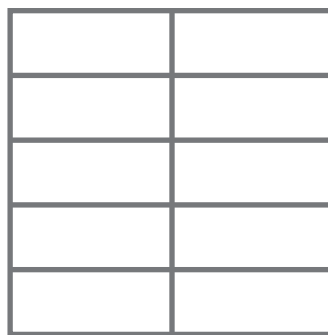


Solve using an area model.

$$3.) 2 \times 5 = 10$$



or



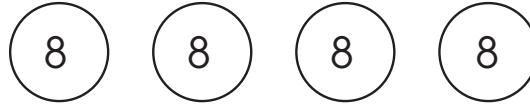
4.) Draw an array with 5 rows and a total of 20 dots.



5.) How many columns in this array? 4



Use the equal-groups model to answer the questions.



6.) How many groups are above? 4

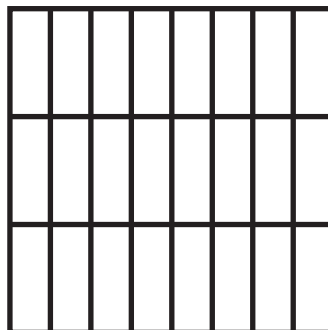
7.) How many are in each group? 8

8.) 8 \times 4 = 32 or $4 \times 8 = 32$

9.) There are 25 books on the floor in Dominic's room. His bookcase has 5 shelves. How many books will be on each shelf if he puts an equal number per shelf?

- ☒ A 5 books per shelf
- ☐ B 30 books per shelf
- ☐ C 4 books per shelf
- ☐ D 20 books per shelf

Write a repeated addition equation and a multiplication equation for the equal-groups model.



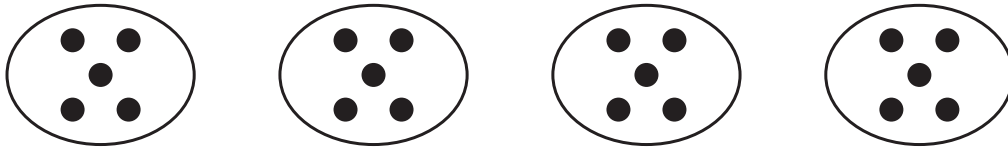
$$8 + 8 + 8 = 24 \text{ or}$$

10.) Repeated addition: $3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 = 24$

11.) Multiplication: 3 \times 8 = 24 or $8 \times 3 = 24$

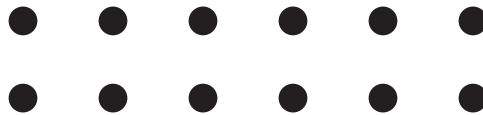
Review

Equal-Groups Model



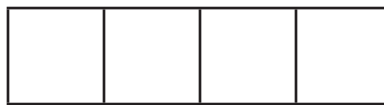
$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

Array



$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

Area Model

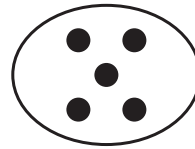
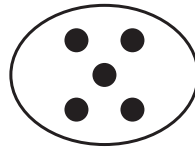
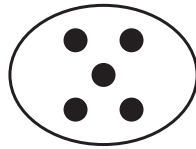
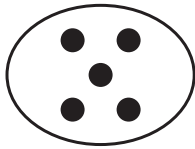


$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$



Review

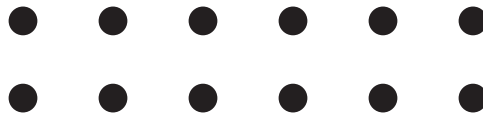
Equal-Groups Model



$$\begin{array}{r} 4 \\ \times 5 \\ \hline \end{array} = \begin{array}{r} 20 \\ \hline \end{array}$$

or $5 \times 4 = 20$

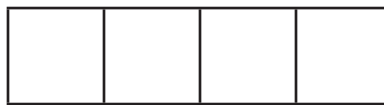
Array



$$\begin{array}{r} 2 \\ \times 6 \\ \hline \end{array} = \begin{array}{r} 12 \\ \hline \end{array}$$

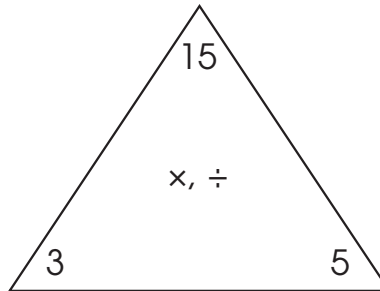
or $6 \times 2 = 12$

Area Model



$$\begin{array}{r} 1 \\ \times 4 \\ \hline \end{array} = \begin{array}{r} 4 \\ \hline \end{array}$$

or $4 \times 1 = 4$

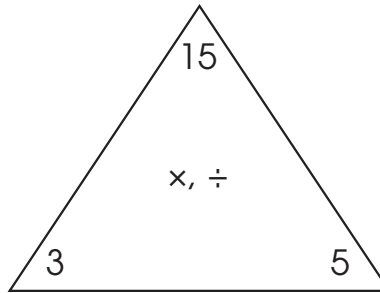


×

÷

Dividend	Divisor
Quotient	Corresponding Equation

$15 \div 5 = 3$



×

÷

$$3 \times 5 = 15$$

$$15 \div 3 = 5$$

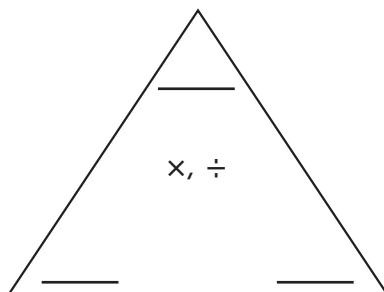
Answers may appear in any order and be considered correct.

$$5 \times 3 = 15$$

$$15 \div 5 = 3$$

Dividend			Divisor
15			5
	15 ÷ 5 = 3		
Quotient			Corresponding Equation
3			15 ÷ 3 = 5

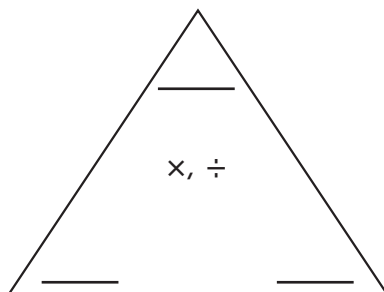
Round 1



\times

\div

Round 2



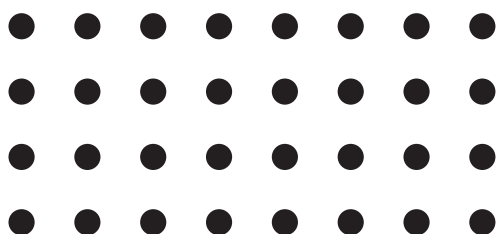
\times

\div

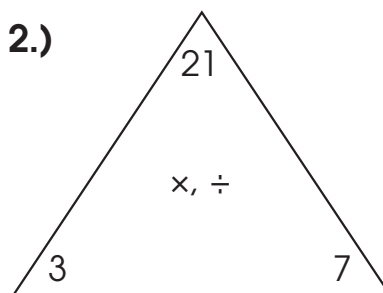
Write two multiplication equations and two division equations for the representations below.

1.)

Total = 32



2.)



3.) $48 \div 8 = 6$ $8 \times 6 = 48$

What are the numbers in this number family? _____

4.) Circle the equation that is not in the same number family as the others.

$6 \times 9 = 54$

$54 \div 6 = 9$

$18 \times 3 = 54$

$54 \div 9 = 6$

Read and solve.

- 5.) There are 21 band members in the marching band. They are lined up 7 people to a row for the parade. How many lines did they form?

Draw an array to solve this problem.

How many lines did they form? _____

Write a multiplication equation for the array.

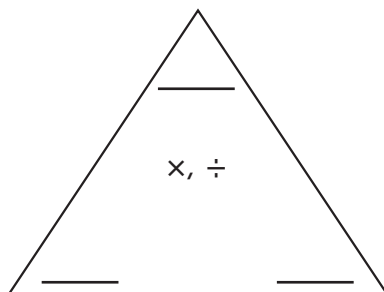
Write a division equation for the array.

answers will vary

Module MDFS
Lesson 5
Practice Key



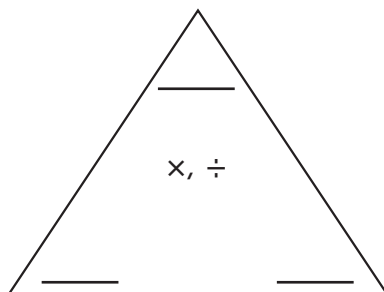
Round 1



x

÷

Round 2



x

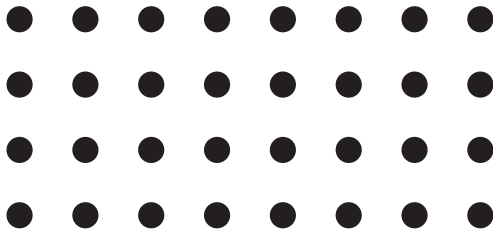
÷



Write two multiplication equations and two division equations for the representations below.

1.)

Total = 32



$$4 \times 8 = 32$$

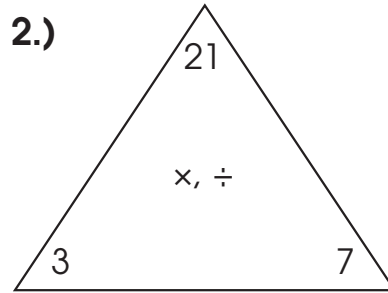
$$8 \times 4 = 32$$

$$32 \div 4 = 8$$

$$32 \div 8 = 4$$

Answers may
appear in any
order and be
considered
correct.

2.)



$$3 \times 7 = 21$$

$$7 \times 3 = 21$$

$$21 \div 3 = 7$$

$$21 \div 7 = 3$$

3.) $48 \div 8 = 6$ $8 \times 6 = 48$

What are the numbers in this number family? 6, 8, 48

4.) Circle the equation that is not in the same number family as the others.

$$6 \times 9 = 54$$

$$54 \div 6 = 9$$

$$18 \times 3 = 54$$

$$54 \div 9 = 6$$



Read and solve.

- 5.) There are 21 band members in the marching band. They are lined up 7 people to a row for the parade. How many lines did they form?

Draw an array to solve this problem.



How many lines did they form? 3

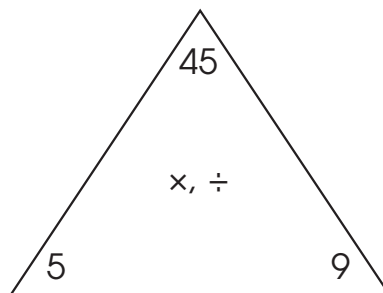
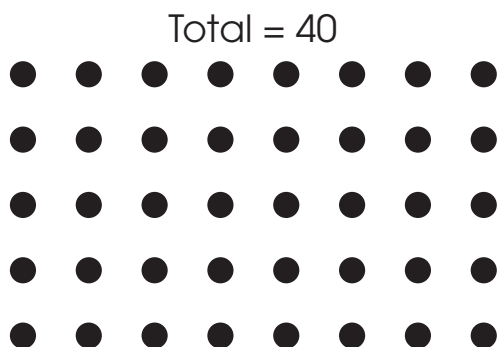
Write a multiplication equation for the array.

$3 \times 7 = 21$ or $7 \times 3 = 21$

Write a division equation for the array.

$21 \div 3 = 7$ or $21 \div 7 = 3$

Write the number family for the representations below.



1.) _____ 2.) _____

5.) _____ 6.) _____

3.) _____ 4.) _____

7.) _____ 8.) _____

9.) $42 \div 7 = 6$ $7 \times 6 = 42$

What are the numbers in this number family? _____

Write the corresponding division equation for each problem.

10.) $9 \times 9 = 81$

11.) $6 \times 8 = 48$

Write the corresponding multiplication equation for each problem.

12.) $14 \div 7 = 2$

13.) $63 \div 7 = 9$

Choose the correct multiplication equation and division equation to represent this problem.

- 14.)** There are 12 pieces of candy left in the bowl. If Jana is fair, she will give herself and her 3 friends the same number of pieces. How many pieces does each person get if all 12 pieces are divided evenly?

A	$12 \div 3 = 4$	B	$12 \div 2 = 6$
	$12 \times 3 = 4$		$6 \times 2 = 12$
C	$4 \div 12 = 3$	D	$12 \div 4 = 3$
	$4 \times 12 = 3$		$4 \times 3 = 12$

- 15.)** Draw an array with 7 rows and a total of 21 dots.

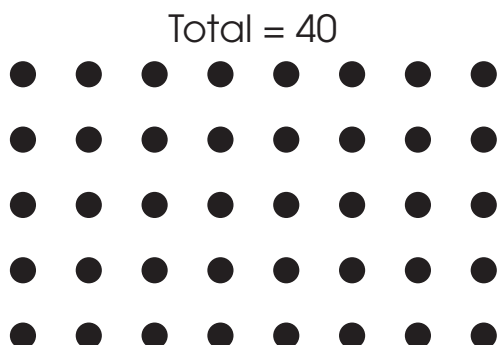
- 16.)** How many dots are in each row? _____

- 17.)** There are 5 boxes. Each box has 7 toys. How many toys in all?

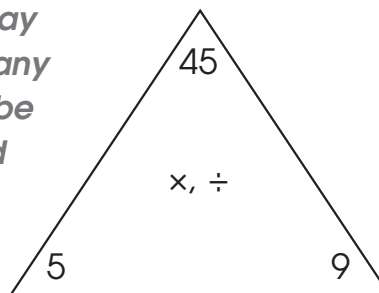
A	12	B	36	C	35	D	2
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Write the number family for the representations below.



Answers may appear in any order and be considered correct.



1.) $5 \times 8 = 40$ 2.) $8 \times 5 = 40$

5.) $5 \times 9 = 45$ 6.) $9 \times 5 = 45$

3.) $40 \div 5 = 8$ 4.) $40 \div 8 = 5$

7.) $45 \div 5 = 9$ 8.) $45 \div 9 = 5$

9.) $42 \div 7 = 6$ $7 \times 6 = 42$

What are the numbers in this number family? 7, 6, 42

Write the corresponding division equation for each problem.

10.) $9 \times 9 = 81$
 $81 \div 9 = 9$

11.) $6 \times 8 = 48$
 $48 \div 6 = 8$ or $48 \div 8 = 6$

Write the corresponding multiplication equation for each problem.

12.) $14 \div 7 = 2$
 $7 \times 2 = 14$ or $2 \times 7 = 14$

13.) $63 \div 7 = 9$
 $7 \times 9 = 63$ or $9 \times 7 = 63$



Choose the correct multiplication equation and division equation to represent this problem.

- 14.) There are 12 pieces of candy left in the bowl. If Jana is fair, she will give herself and her 3 friends the same number of pieces. How many pieces does each person get if all 12 pieces are divided evenly?

A $12 \div 3 = 4$
 $12 \times 3 = 4$

B $12 \div 2 = 6$
 $6 \times 2 = 12$

C $4 \div 12 = 3$
 $4 \times 12 = 3$

D $12 \div 4 = 3$
 $4 \times 3 = 12$

- 15.) Draw an array with 7 rows and a total of 21 dots.



- 16.) How many dots in each row? 3

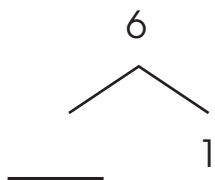
- 17.) There are 5 boxes. Each box has 7 toys. How many toys in all?

A 12

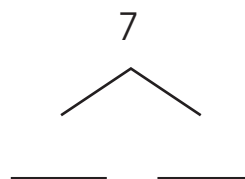
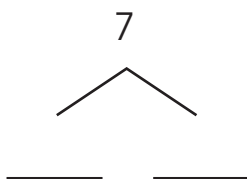
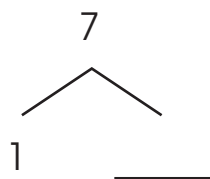
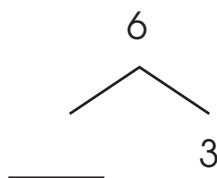
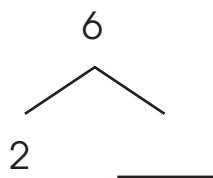
B 36

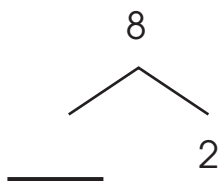
C 35

D 2

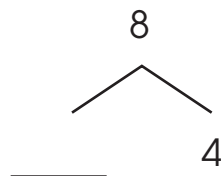
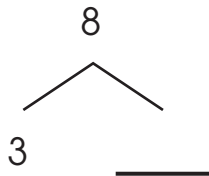
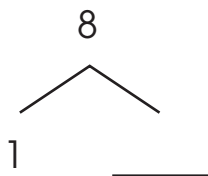


Number Family

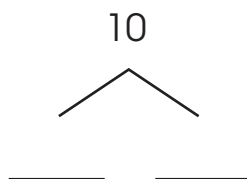
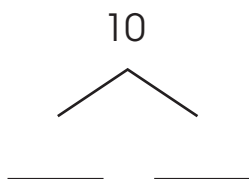
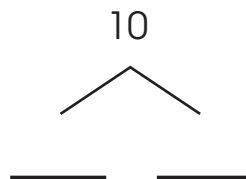
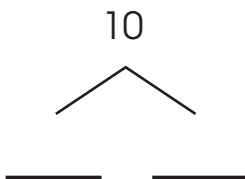
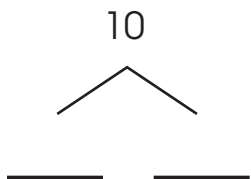




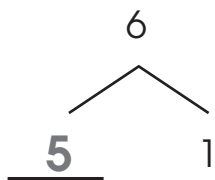
Number Family



Does not belong _____



$$9 = \underline{\quad} - 1$$



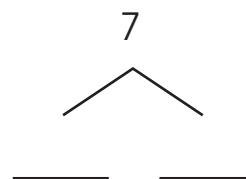
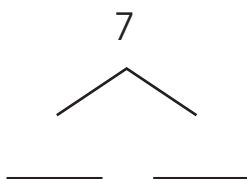
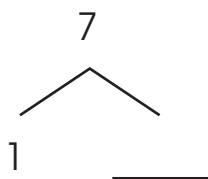
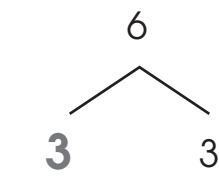
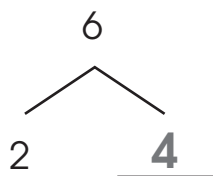
Number Family

$$\underline{1 + 5 = 6}$$

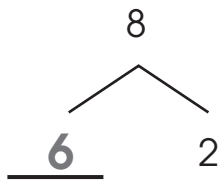
$$\underline{5 + 1 = 6}$$

$$\underline{6 - 1 = 5}$$

$$\underline{6 - 5 = 1}$$



Answers will vary.



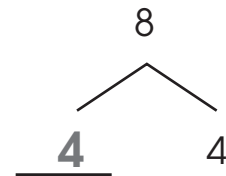
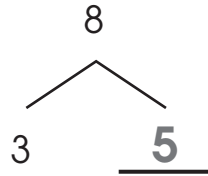
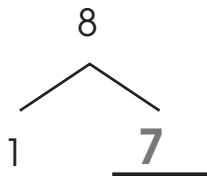
Number Family

$$\underline{6 + 2 = 8}$$

$$\underline{2 + 6 = 8}$$

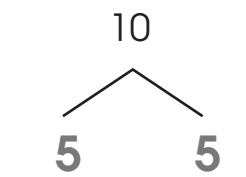
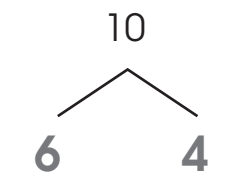
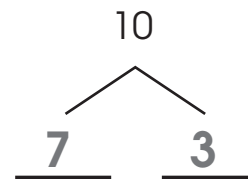
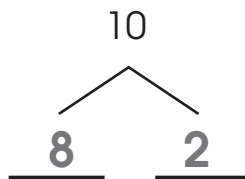
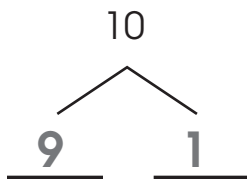
$$\underline{8 - 2 = 6}$$

$$\underline{8 - 6 = 2}$$




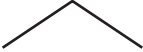
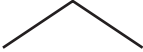
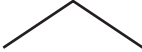
Does not belong _____

Answers will vary.



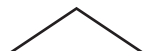




$$9 = \underline{10} - 1$$

1.) Break apart 9.

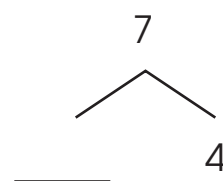
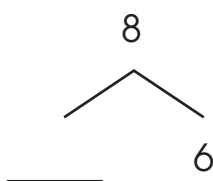
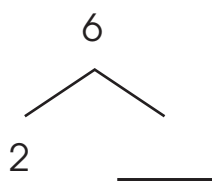
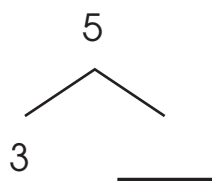
9	9	9	9
			
_____	_____	_____	_____

2.) Break apart 11.

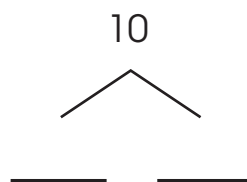
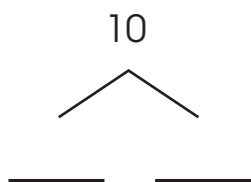
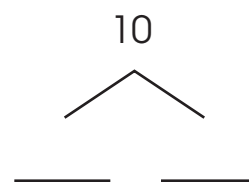
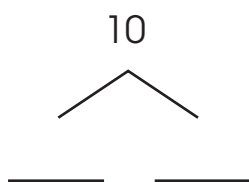
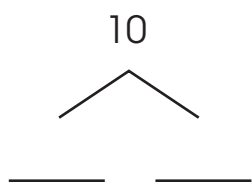
11	11	11
		
_____	_____	_____
	11	11
		
	_____	_____

3.) Write the addition and subtraction equations in the number family using 11, 6, and 5.

4.) Break apart the number. Write the part on the line.

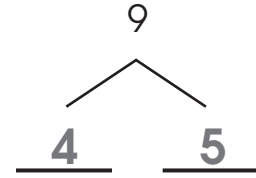
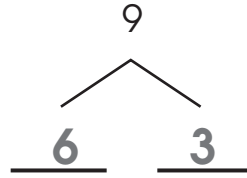
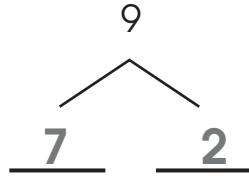
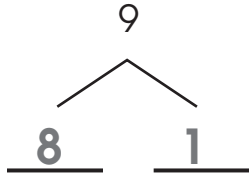


5.) Write all the ways to break apart 10.



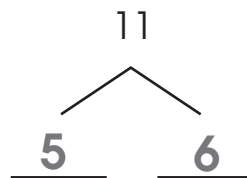
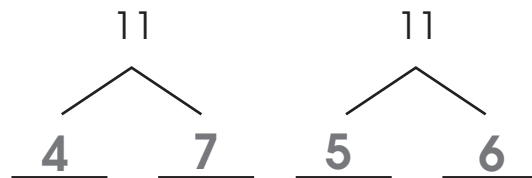
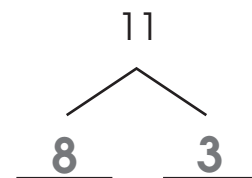
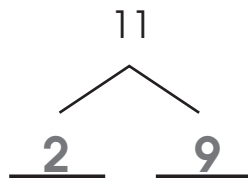
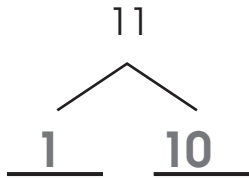


1.) Break apart 9.



Answers may appear in any order and be considered correct.

2.) Break apart 11.



Answers may appear in any order and be considered correct.

3.) Write the addition and subtraction equations in the number family using 11, 6, and 5.

$$\underline{6 + 5 = 11}$$

$$\underline{5 + 6 = 11}$$

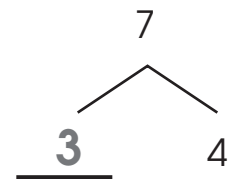
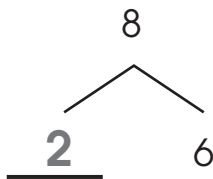
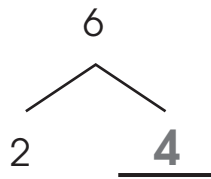
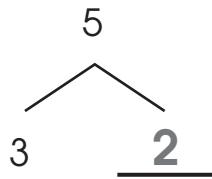
$$\underline{11 - 5 = 6}$$

$$\underline{11 - 6 = 5}$$

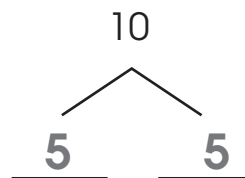
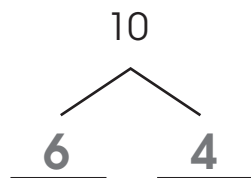
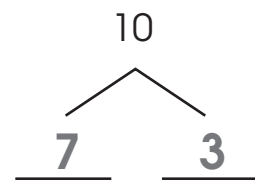
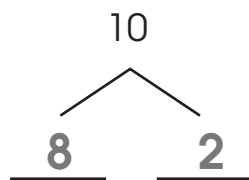
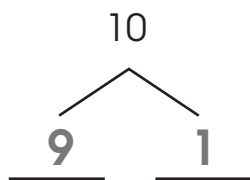
Answers may
appear in
any order
and be
considered
correct.



4.) Break apart the number. Write the part on the line.



5.) Write all the ways to break apart 10.



Answers may vary in any order and be considered correct.

2 number cubes

1. Player 1 rolls both number cubes and writes the 2 parts in the column with the correct sum.
2. Player 2 rolls both number cubes and writes the 2 parts in the column with the correct sum.
3. The players continue to take turns rolling the number cubes and writing the correct sum until 1 player has filled all the empty spaces.
4. If a player rolls the same parts that are already written then that player must pass.

Answers will vary.

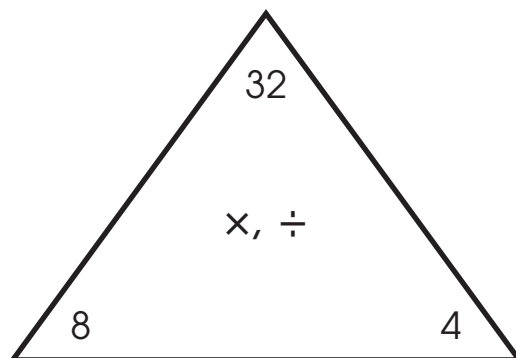
[illegible]

1.) $36 \div 4 = 9$

$4 \times 9 = 36$

What are the numbers in the number family? _____

Write the number family for the representation below.



2.) _____

3.) _____

4.) _____

5.) _____

6.) Draw an array with 7 rows and a total of 28 dots.

7.) There are 6 bags. Each bag has 4 potatoes. How many potatoes are there in all?

Write the corresponding multiplication equation for each problem.

8.) $16 \div 2 = 8$

9.) $21 \div 7 = 3$

Write the addition and subtraction equations in the number family using 12, 5, and 7.

10.) _____

11.) _____

12.) _____

13.) _____

Break apart the numbers. Write the part on the line.

14.)

$$\begin{array}{c} 9 \\ \diagdown \quad \diagup \\ 3 \quad \underline{\hspace{2cm}} \end{array}$$

15.)

$$\begin{array}{c} 10 \\ \diagdown \quad \diagup \\ \underline{\hspace{2cm}} \quad 3 \end{array}$$

16.)

$$\begin{array}{c} 11 \\ \diagdown \quad \diagup \\ 5 \quad \underline{\hspace{2cm}} \end{array}$$

Write 2 ways to break apart 12.

17.)

$$\begin{array}{c} 12 \\ \diagdown \quad \diagup \\ \underline{\hspace{2cm}} \quad \underline{\hspace{2cm}} \end{array}$$

18.)

$$\begin{array}{c} 12 \\ \diagdown \quad \diagup \\ \underline{\hspace{2cm}} \quad \underline{\hspace{2cm}} \end{array}$$

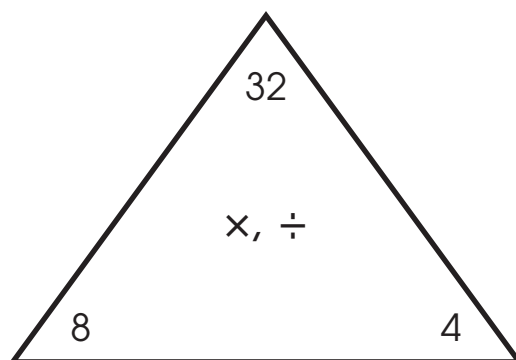


1.) $36 \div 4 = 9$

$4 \times 9 = 36$

What are the numbers in the number family? 4, 9, 36

Write the number family for the representation below.



2.) $8 \times 4 = 32$

3.) $4 \times 8 = 32$

4.) $32 \div 4 = 8$

5.) $32 \div 8 = 4$

Answers may
appear in any
order and be
considered
correct.

6.) Draw an array with 7 rows and a total of 28 dots.





7.) There are 6 bags. Each bag has 4 potatoes. How many potatoes are there in all?

$$6 \times 4 = 24 \quad \text{or} \quad 4 \times 6 = 24$$

Write the corresponding multiplication equation for each problem.

8.) $16 \div 2 = 8$

$$2 \times 8 = 16 \quad \text{or} \\ 8 \times 2 = 16$$

9.) $21 \div 7 = 3$

$$7 \times 3 = 21 \quad \text{or} \\ 3 \times 7 = 21$$

Write the addition and subtraction equations in the number family using 12, 5, and 7.

10.) $5 + 7 = 12$

11.) $7 + 5 = 12$

12.) $12 - 7 = 5$

13.) $12 - 5 = 7$

Answers may appear in any order and be considered correct.



Break apart the numbers. Write the part on the line.

14.)

$$\begin{array}{c} 9 \\ \swarrow \quad \searrow \\ 3 \quad \underline{6} \end{array}$$

15.)

$$\begin{array}{c} 10 \\ \swarrow \quad \searrow \\ \underline{7} \quad 3 \end{array}$$

16.)

$$\begin{array}{c} 11 \\ \swarrow \quad \searrow \\ 5 \quad \underline{6} \end{array}$$

Write 2 ways to break apart 12.

17.)

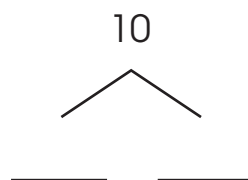
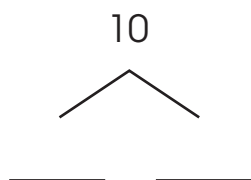
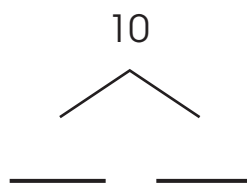
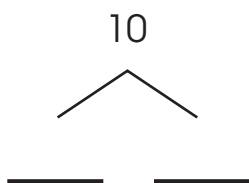
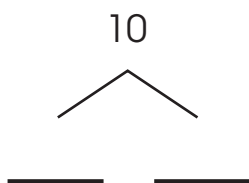
$$\begin{array}{c} 12 \\ \swarrow \quad \searrow \\ \underline{\quad} \quad \underline{\quad} \end{array}$$

18.)

$$\begin{array}{c} 12 \\ \swarrow \quad \searrow \\ \underline{\quad} \quad \underline{\quad} \end{array}$$

Answers may vary.

Break apart 10.



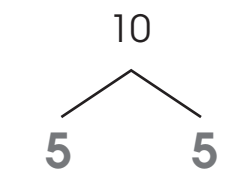
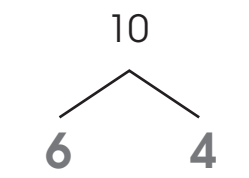
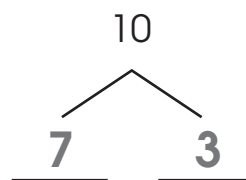
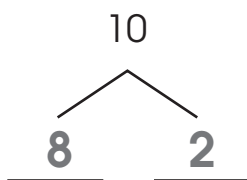
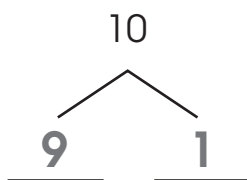
$$30 - 3 =$$

$$50 - 5 =$$

$$20 - 2 =$$



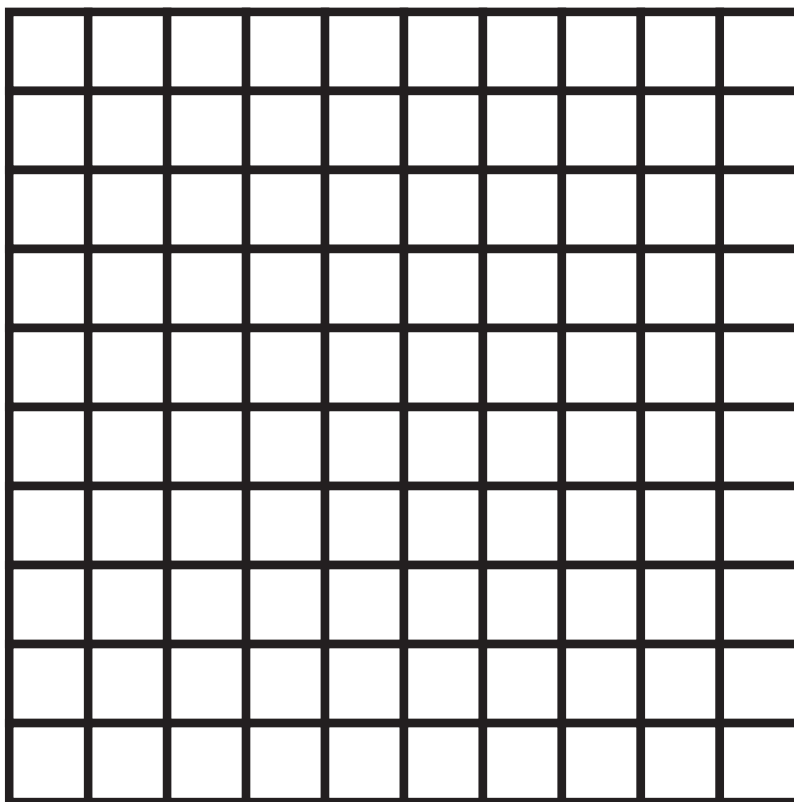
Break apart 10.



$$30 - 3 = 27$$

$$50 - 5 = 45$$

$$20 - 2 = 18$$



Make 10 Subtract the Factor.

Step 1) Think of 9 as 10.

Step 2) Multiply 10 times the other factor.

Step 3) Subtract the other factor.

$$9 \times 6$$

$$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$$

$$\underline{\hspace{2cm}} - \underline{\hspace{2cm}}$$

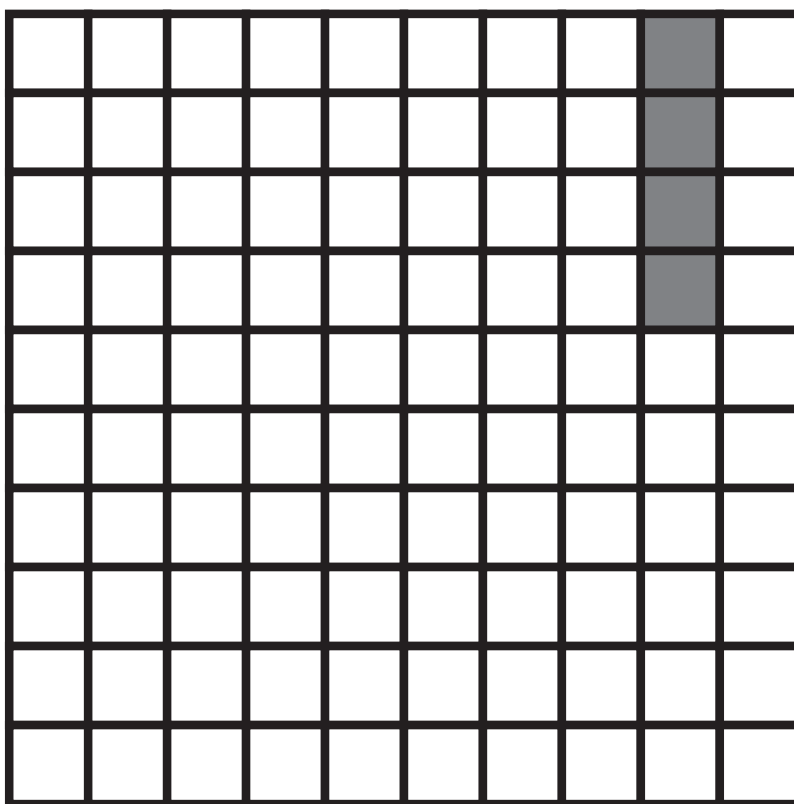
$$= \underline{\hspace{2cm}}$$

$$9 \times 9$$

$$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$$

$$\underline{\hspace{2cm}} - \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}}$$





Make 10 Subtract the Factor.

Step 1) Think of 9 as 10.

Step 2) Multiply 10 times the other factor.

Step 3) Subtract the other factor.

$$9 \times 6$$

$$\begin{array}{r} \underline{10} \times \underline{6} \\ \underline{60} - \underline{6} \\ = \underline{54} \end{array}$$

$$9 \times 9$$

$$\begin{array}{r} \underline{10} \times \underline{9} \\ \underline{90} - \underline{9} \\ = \underline{81} \end{array}$$

Use the Make 10 Subtract the Factor strategy to solve.

1.) 9×6

$$\begin{array}{r} \underline{\quad\quad} \times \underline{\quad\quad} \\ \underline{\quad\quad} - \underline{\quad\quad} \\ = \underline{\quad\quad} \end{array}$$

2.) 9×7

$$\begin{array}{r} \underline{\quad\quad} \times \underline{\quad\quad} \\ \underline{\quad\quad} - \underline{\quad\quad} \\ = \underline{\quad\quad} \end{array}$$

3.) 9×9

$$\begin{array}{r} \underline{\quad\quad} \times \underline{\quad\quad} \\ \underline{\quad\quad} - \underline{\quad\quad} \\ = \underline{\quad\quad} \end{array}$$

4.) Write the multiplication and division equations for the number family using 6, 9, and 54.

Use the Make 10 Subtract the Factor strategy to solve.

1.) 9×3

$$\begin{array}{r} \underline{\hspace{2cm}} \times \underline{\hspace{2cm}} \\ \underline{\hspace{2cm}} - \underline{\hspace{2cm}} \\ = \underline{\hspace{2cm}} \end{array}$$

2.) 6×9

$$\begin{array}{r} \underline{\hspace{2cm}} \times \underline{\hspace{2cm}} \\ \underline{\hspace{2cm}} - \underline{\hspace{2cm}} \\ = \underline{\hspace{2cm}} \end{array}$$

3.) 8×9

$$\begin{array}{r} \underline{\hspace{2cm}} \times \underline{\hspace{2cm}} \\ \underline{\hspace{2cm}} - \underline{\hspace{2cm}} \\ = \underline{\hspace{2cm}} \end{array}$$

4.) 9×7

$$\begin{array}{r} \underline{\hspace{2cm}} \times \underline{\hspace{2cm}} \\ \underline{\hspace{2cm}} - \underline{\hspace{2cm}} \\ = \underline{\hspace{2cm}} \end{array}$$



Use the Make 10 Subtract the Factor strategy to solve.

1.) 9×6

$$\begin{array}{r} \underline{10} \times \underline{3} \\ \underline{60} - \underline{6} \\ = \underline{54} \end{array}$$

2.) 9×7

$$\begin{array}{r} \underline{10} \times \underline{7} \\ \underline{70} - \underline{7} \\ = \underline{63} \end{array}$$

3.) 9×9

$$\begin{array}{r} \underline{9} \times \underline{10} \\ \underline{90} - \underline{9} \\ = \underline{81} \end{array}$$

4.) Write the multiplication and division equations for the number family using 6, 9, and 54.

$$\underline{6 \times 9 = 54}$$

$$\underline{9 \times 6 = 54}$$

$$\underline{54 \div 6 = 9}$$

$$\underline{54 \div 9 = 6}$$

answers may appear in any order and be considered correct



Use the Make 10 Subtract the Factor strategy to solve.

1.) 9×3

$$\begin{array}{r} \underline{10} \times \underline{3} \\ \underline{30} - \underline{3} \\ = \underline{27} \end{array}$$

2.) 6×9

$$\begin{array}{r} \underline{6} \times \underline{10} \\ \underline{60} - \underline{6} \\ = \underline{54} \end{array}$$

3.) 8×9

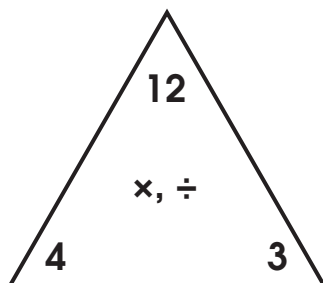
$$\begin{array}{r} \underline{8} \times \underline{10} \\ \underline{80} - \underline{8} \\ = \underline{72} \end{array}$$

4.) 9×7

$$\begin{array}{r} \underline{10} \times \underline{7} \\ \underline{70} - \underline{7} \\ = \underline{63} \end{array}$$

1.) Draw an array with 3 rows and a total of 24 dots.

Write the number family for the representation below.



2.) _____

3.) _____

4.) _____

5.) _____

6.) Which equation does not belong to the number family?

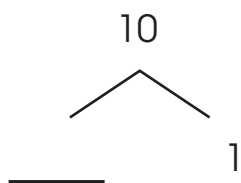
A $3 \times 9 = 27$ **B** $27 \div 3 = 9$ **C** $9 \div 3 = 3$ **D** $9 \times 3 = 27$

7.) Ethan has 4 sheets of paper. Each paper has 4 stickers.

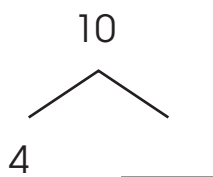
How many stickers are there? _____

Break apart 10. Write the part on the line.

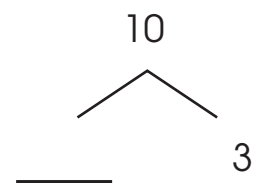
8.)



9.)



10.)



Use the Make 10 subtract the Factor strategy to solve.

11.)

7×9

$$\begin{array}{r} \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} \\ \underline{\hspace{1cm}} - \underline{\hspace{1cm}} \\ = \underline{\hspace{1cm}} \end{array}$$

12.)

9×4

$$\begin{array}{r} \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} \\ \underline{\hspace{1cm}} - \underline{\hspace{1cm}} \\ = \underline{\hspace{1cm}} \end{array}$$

13.)

9×6

$$\begin{array}{r} \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} \\ \underline{\hspace{1cm}} - \underline{\hspace{1cm}} \\ = \underline{\hspace{1cm}} \end{array}$$

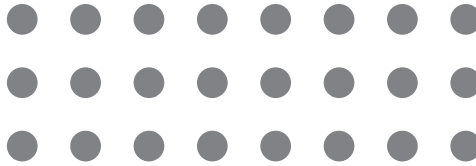
- 14.) 8 girls sold 9 tickets for the school musical.
 How many tickets were sold altogether?

8×9

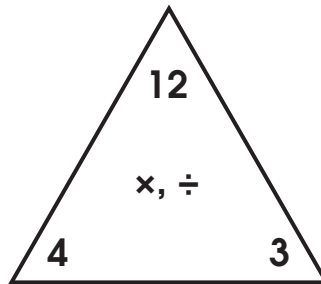
$$\begin{array}{r} \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} \\ \underline{\hspace{1cm}} - \underline{\hspace{1cm}} \\ = \underline{\hspace{1cm}} \text{ tickets} \end{array}$$



1.) Draw an array with 3 rows and a total of 24 dots.



Write the number family for the representation below.



Answers may be
in any order and
be considered
correct.

2.) $4 \times 3 = 12$

3.) $3 \times 4 = 12$

4.) $12 \div 4 = 3$

5.) $12 \div 3 = 4$

6.) Which equation does not belong to the number family?

A $3 \times 9 = 27$

B $27 \div 3 = 9$

C $9 \div 3 = 3$

D $9 \times 3 = 27$

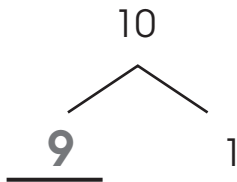
7.) Ethan has 4 sheets of paper. Each paper has 4 stickers.

How many stickers are there? $4 \times 4 = 16$

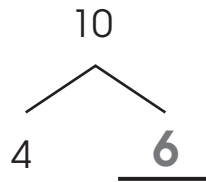


Break apart 10. Write the part on the line.

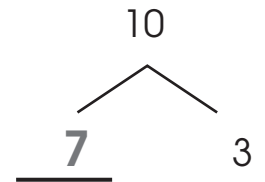
8.)



9.)



10.)



Use the Make 10 subtract the Factor strategy to solve.

11.)

7×9

$$\begin{array}{r} \underline{7} \times \underline{10} \\ \underline{70} - \underline{7} \\ = \underline{63} \end{array}$$

12.)

9×4

$$\begin{array}{r} \underline{10} \times \underline{4} \\ \underline{40} - \underline{4} \\ = \underline{36} \end{array}$$

13.)

9×6

$$\begin{array}{r} \underline{10} \times \underline{6} \\ \underline{60} - \underline{6} \\ = \underline{54} \end{array}$$

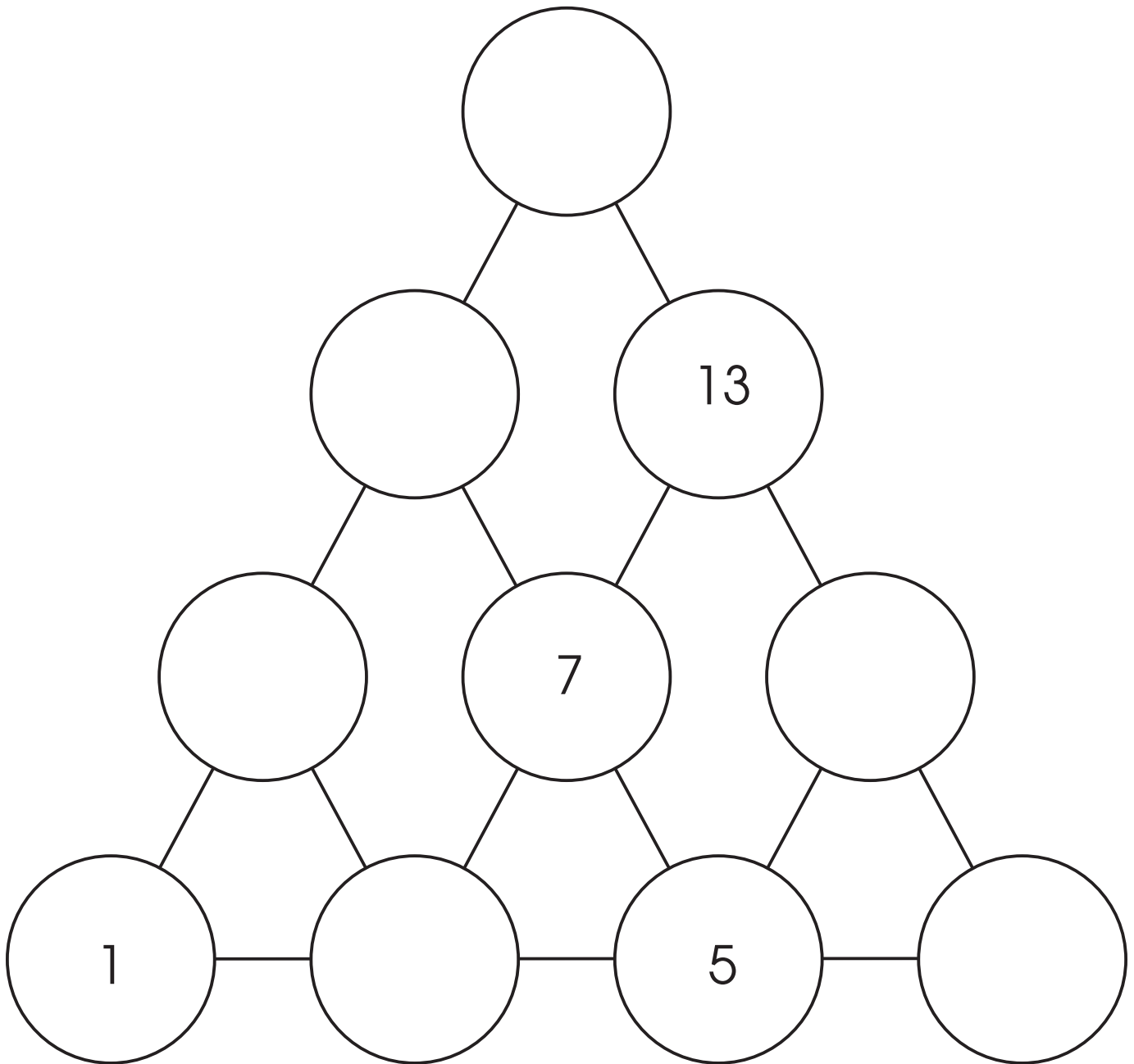
14.) 8 girls sold 9 tickets for the school musical.
How many tickets were sold altogether?

8×9

$$\begin{array}{r} \underline{8} \times \underline{10} \\ \underline{80} - \underline{8} \\ = \underline{72} \text{ tickets} \end{array}$$

Fill in the missing numbers.

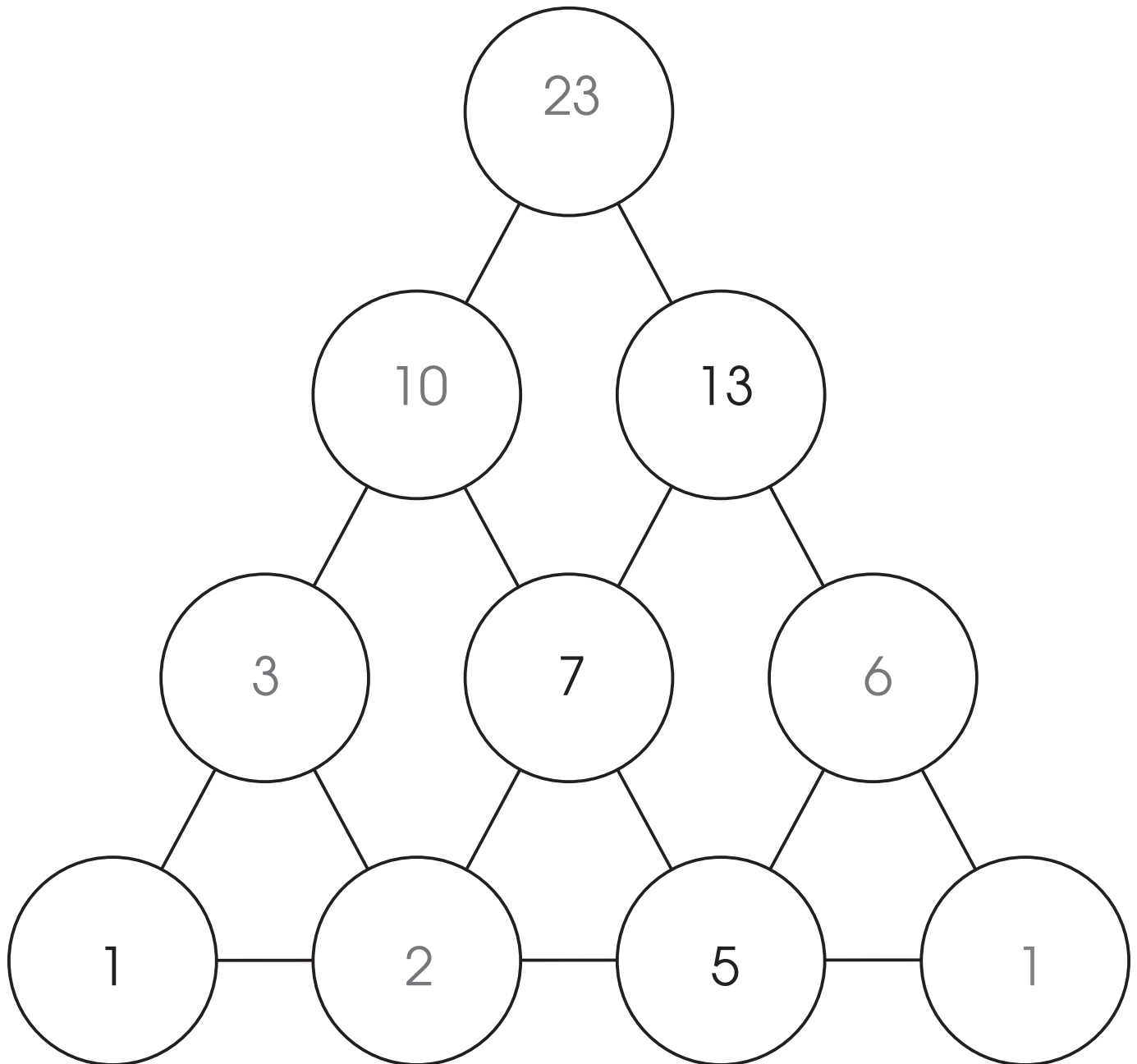
Hint: A good place to start is a circle with a whole and one part. Then, find the missing part to give you a clue to the next problem.



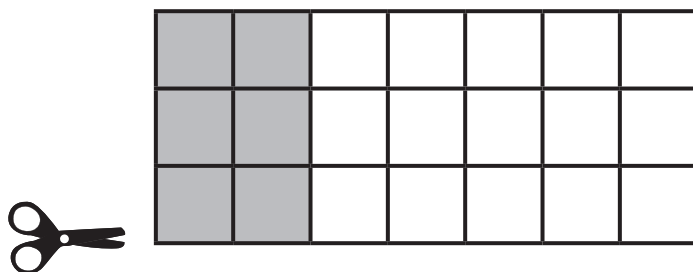


Fill in the missing numbers.

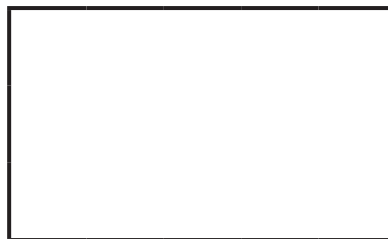
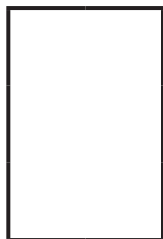
Hint: A good place to start is a circle with a whole and one part. Then, find the missing part to give you a clue to the next problem.



Cut out the area model to be used with Modeled Practice Display #2, 3×7 .



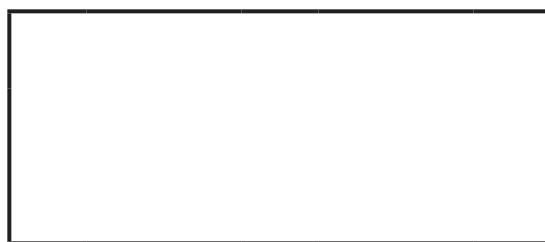
$$3 \times 7$$



$$\underline{\quad} \times \underline{\quad} + \underline{\quad} \times \underline{\quad}$$

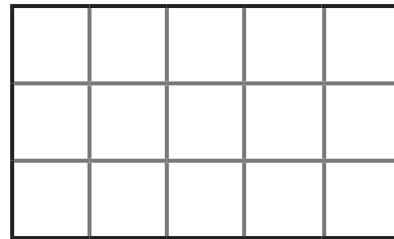
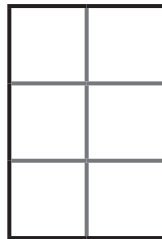
$$\underline{\quad} + \underline{\quad}$$

$$3 \times 7 = \underline{\quad}$$





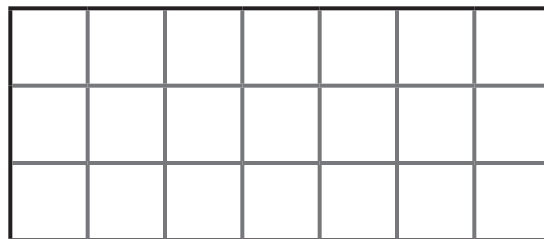
$$3 \times 7$$



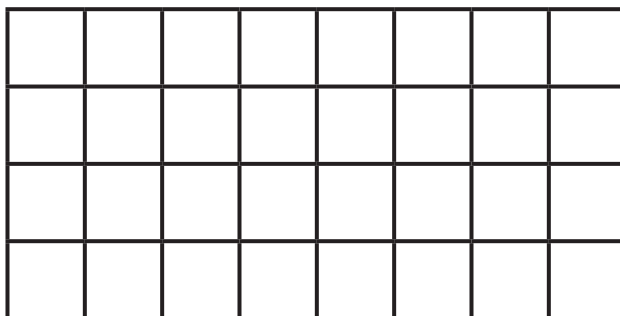
$$\underline{3} \times \underline{2} + \underline{3} \times \underline{5}$$

$$\underline{6} + \underline{15}$$

$$3 \times 7 = \underline{21}$$



$$4 \times 8 = \underline{\hspace{2cm}}$$

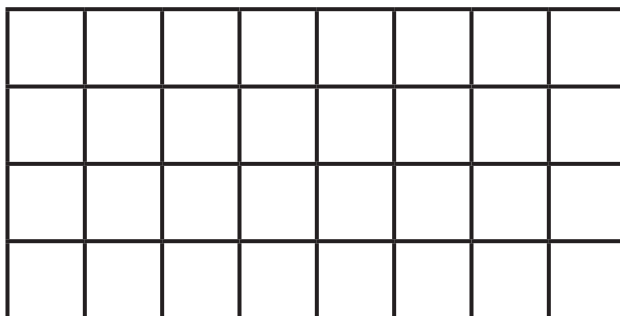


$$(\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}) + (\underline{\hspace{2cm}} \times \underline{\hspace{2cm}})$$

$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}}$$

$$4 \times 8 = \underline{\hspace{2cm}}$$

$$4 \times 8 = \underline{\hspace{2cm}}$$



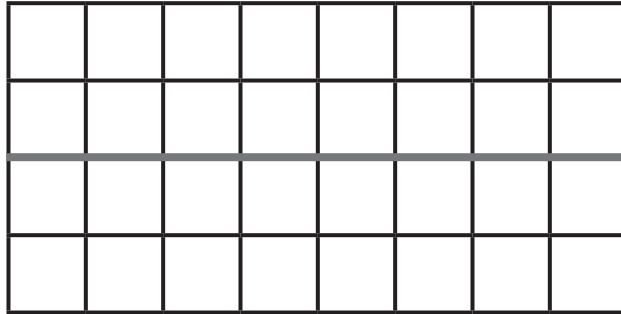
$$(\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}) + (\underline{\hspace{2cm}} \times \underline{\hspace{2cm}})$$

$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}}$$

$$4 \times 8 = \underline{\hspace{2cm}}$$



$$4 \times 8 = \underline{32}$$



$$2 \times 8$$

$$2 \times 8$$

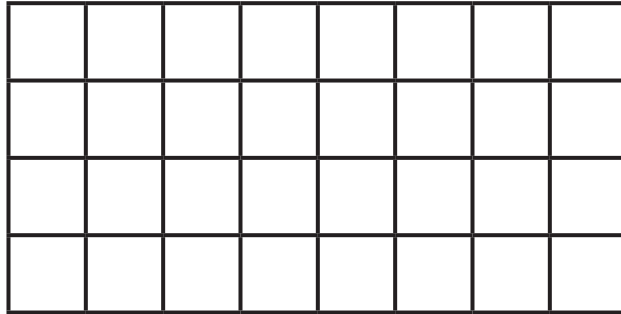
$$(\underline{2} \times \underline{8}) + (\underline{2} \times \underline{8})$$

$$\underline{16} + \underline{16}$$

$$4 \times 8 = \underline{32}$$



$$4 \times 8 = \underline{\hspace{2cm}}$$



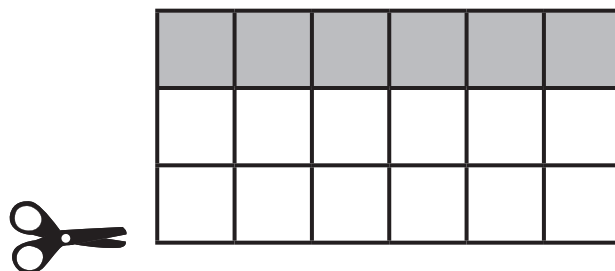
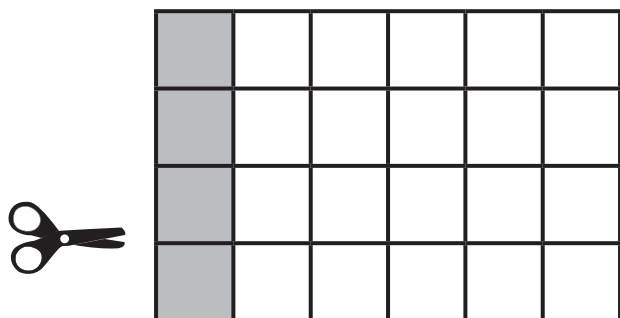
$$(\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}) + (\underline{\hspace{2cm}} \times \underline{\hspace{2cm}})$$

$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}}$$

$$4 \times 8 = \underline{\hspace{2cm}}$$

Answers will vary.

Cut out the area models.

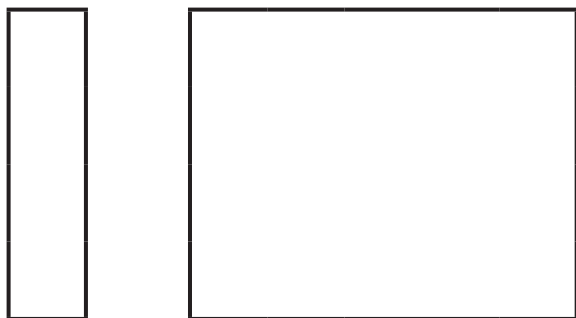


Cut and paste the rectangle for each multiplication problem into the blank boxes below. Break up the factor that is circled. Complete the problem to solve.

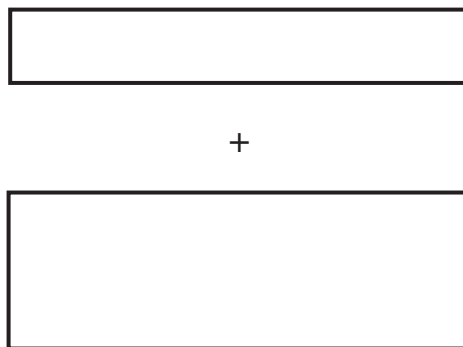
1.) 4×6

2.) 3×6

$4 \times (\underline{\hspace{2cm}} + \underline{\hspace{2cm}})$



$(\underline{\hspace{2cm}} + \underline{\hspace{2cm}}) \times 6$



$(4 \times \underline{\hspace{2cm}}) + (4 \times \underline{\hspace{2cm}})$

$\underline{\hspace{2cm}} + \underline{\hspace{2cm}}$

$4 \times 6 = \underline{\hspace{2cm}}$

$(\underline{\hspace{2cm}} \times 6) + (\underline{\hspace{2cm}} \times 6)$

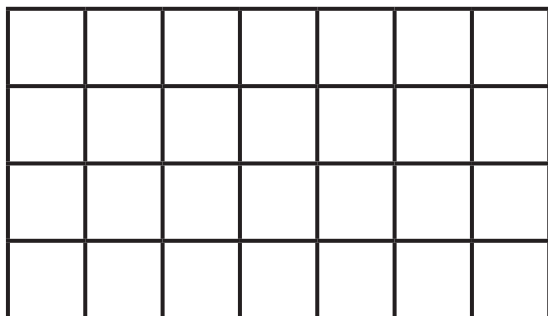
$\underline{\hspace{2cm}} + \underline{\hspace{2cm}}$

$\underline{\hspace{2cm}} = 3 \times 6$

Draw a line to cut the area model into two facts you know. Complete the problem below to solve.

3.)

4



$4 \times \underline{\hspace{2cm}}$

$4 \times (\underline{\hspace{2cm}} \underline{\hspace{2cm}})$

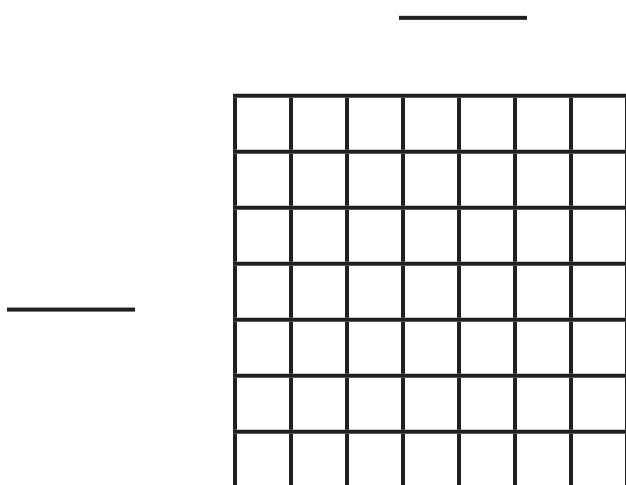
$(4 \times \underline{\hspace{2cm}}) + (4 \times \underline{\hspace{2cm}})$

$\underline{\hspace{2cm}} + \underline{\hspace{2cm}}$

$4 \times 7 = \underline{\hspace{2cm}}$

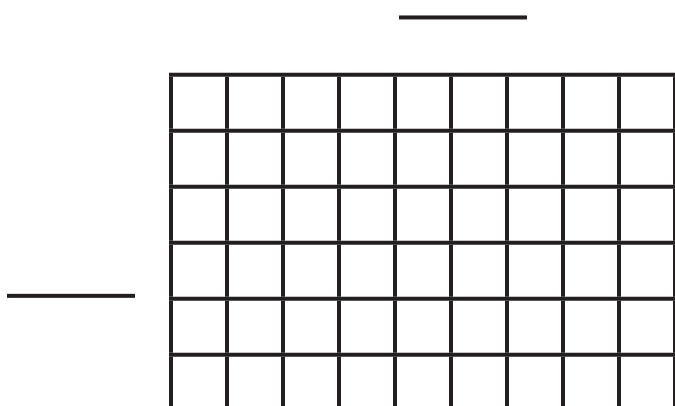
Draw a line to cut the area models into two facts that you know. Complete the problem to solve.

4.) Find the area of the tile floor.



$$\begin{aligned} & \underline{\hspace{2cm}} \times \underline{\hspace{2cm}} \\ & (\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}) + (\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}) \\ & \underline{\hspace{2cm}} + \underline{\hspace{2cm}} \\ & 7 \times 7 = \underline{\hspace{2cm}} \end{aligned}$$

5.) Find the area of the rug below.



$$\begin{aligned} & \underline{\hspace{2cm}} \times \underline{\hspace{2cm}} \\ & (\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}) + (\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}) \\ & \underline{\hspace{2cm}} + \underline{\hspace{2cm}} \\ & \underline{\hspace{2cm}} = 6 \times 8 \end{aligned}$$



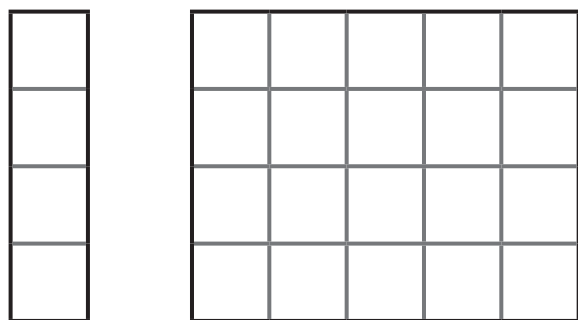
Cut and paste the rectangle for each multiplication problem into the blank boxes below. Break up the factor that is circled. Complete the problem to solve.

1.) $4 \times \textcircled{6}$

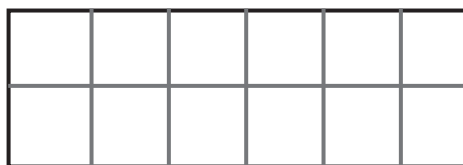
2.) $\textcircled{3} \times 6$

$4 \times (\underline{1} + \underline{5})$

$(\underline{1} + \underline{2}) \times 6$



+



$(4 \times \underline{1}) + (4 \times \underline{5})$

$(\underline{1} \times 6) + (\underline{2} \times 6)$

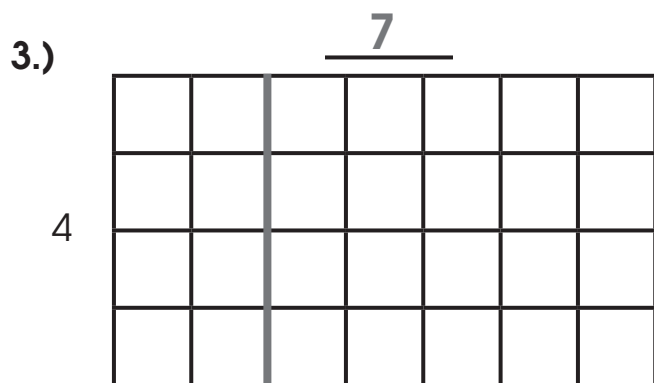
$\underline{4} + \underline{20}$

$\underline{6} + \underline{12}$

$4 \times 6 = \underline{24}$

$\underline{18} = 3 \times 6$

Draw a line to cut the area model into two facts you know. Complete the problem below to solve.



$4 \times \underline{7}$

$4 \times (\underline{2} + \underline{5})$

$(4 \times \underline{2}) + (4 \times \underline{5})$

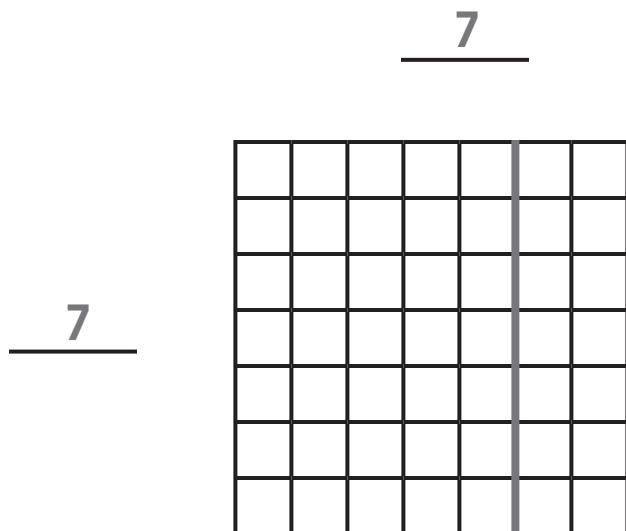
$\underline{8} + \underline{20}$

$4 \times 7 = \underline{28}$



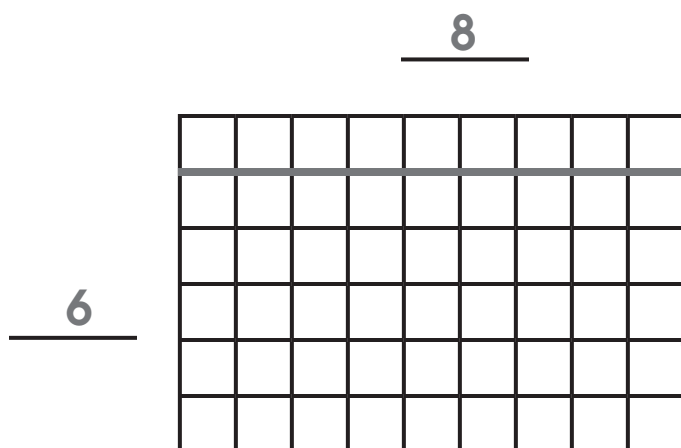
Draw a line to cut the area models into two facts that you know. Complete the problem to solve.

4.) Find the area of the tile floor.



$$\begin{aligned} & \underline{7} \times \underline{7} \\ & (\underline{7} \times \underline{5}) + (\underline{7} \times \underline{2}) \\ & \underline{35} + \underline{14} \\ & 7 \times 7 = \underline{49} \end{aligned}$$

5.) Find the area of the rug below.

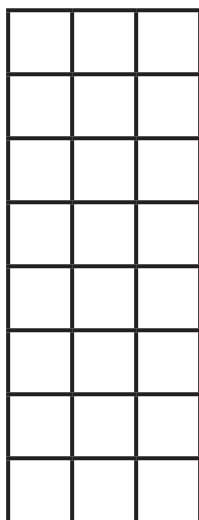


$$\begin{aligned} & \underline{6} \times \underline{8} \\ & (\underline{1} \times \underline{8}) + (\underline{5} \times \underline{8}) \\ & \underline{8} + \underline{40} \\ & \underline{48} = 6 \times 8 \end{aligned}$$

Draw a line to cut the area model into two facts you know. Complete the problem to solve.

1.)

8



$$8 \times \underline{\hspace{2cm}}$$

$$8 \times (\underline{\hspace{2cm}} + \underline{\hspace{2cm}})$$

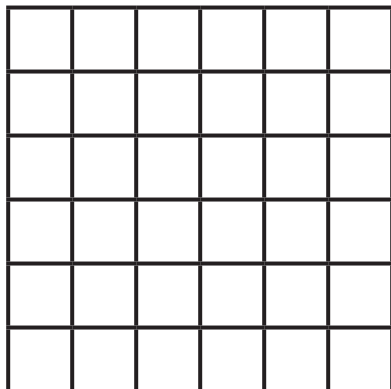
$$(\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}) + (\underline{\hspace{2cm}} \times \underline{\hspace{2cm}})$$

$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}}$$

$$8 \times 3 = \underline{\hspace{2cm}}$$

2.)

6



$$6 \times \underline{\hspace{2cm}}$$

$$6 \times (\underline{\hspace{2cm}} + \underline{\hspace{2cm}})$$

$$(6 \times \underline{\hspace{2cm}}) + (\underline{\hspace{2cm}} \times \underline{\hspace{2cm}})$$

$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}}$$

$$\underline{\hspace{2cm}} = 6 \times 6$$

Break up the factor that is circled. Complete the problem to solve.

3.)

$$\textcircled{6} \times 8$$

$$(\underline{\quad\quad} + \underline{\quad\quad}) \times 8$$

$$(\underline{\quad\quad} \times 8) + (\underline{\quad\quad} \times 8)$$

$$\underline{\quad\quad} + \underline{\quad\quad} = \underline{\quad\quad}$$

$$6 \times 8 = \underline{\quad\quad}$$

4.)

$$\textcircled{7} \times 6$$

$$(\underline{\quad\quad} + \underline{\quad\quad}) \times 6$$

$$(\underline{\quad\quad} \times 6) + (\underline{\quad\quad} \times 6)$$

$$\underline{\quad\quad} + \underline{\quad\quad} = \underline{\quad\quad}$$

$$7 \times 6 = \underline{\quad\quad}$$

5.) Anna is figuring out the area of the wall in her room. It is 6 feet wide and 8 feet tall. Choose the correct way she can solve this unknown problem.

A

$$6 + 8$$

$$(1 + 8) + (5 + 8)$$

$$8 + 13 = 21$$

B

$$8 \times 6$$

$$8 \times (3 + 3)$$

$$(8 \times 3) + (8 \times 3)$$

$$12 + 12 = 24$$

C

$$6 \times 8$$

$$(1 + 5) \times 8$$

$$(1 \times 8) + (5 \times 8)$$

$$8 + 40 = 48$$

D

$$8 \times 6$$

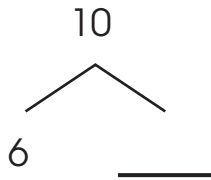
$$8 \times (1 + 5)$$

$$1 \times 8 \times 5$$

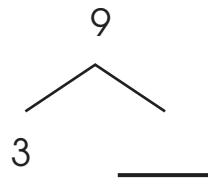
$$1 + 40 = 41$$

Break apart the numbers. Write the part.

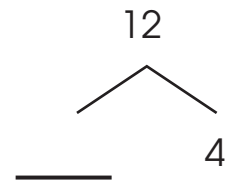
6.)



7.)



8.)



- 9.) 8 girls sold 9 boxes of pecans each for a school fundraiser. How many boxes were sold in all? Use the Make 10 Subtract the Factor strategy.

$$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$$

$$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$$

$$\underline{\hspace{2cm}} - \underline{\hspace{2cm}}$$

$$8 \times 9 = \underline{\hspace{2cm}} \text{ boxes of pecans}$$

Use the Make 10 Subtract the Factor strategy to solve.

10.)

$$6 \times 9$$

$$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$$

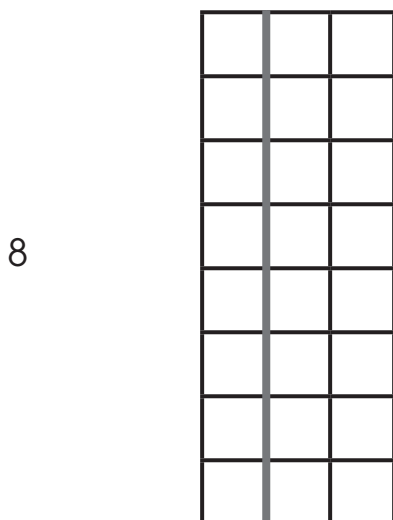
$$\underline{\hspace{2cm}} - \underline{\hspace{2cm}}$$

$$\underline{\hspace{2cm}} = 6 \times 9$$



Draw a line to cut the area model into two facts you know. Complete the problem to solve.

1.) 3



$$8 \times \underline{3}$$

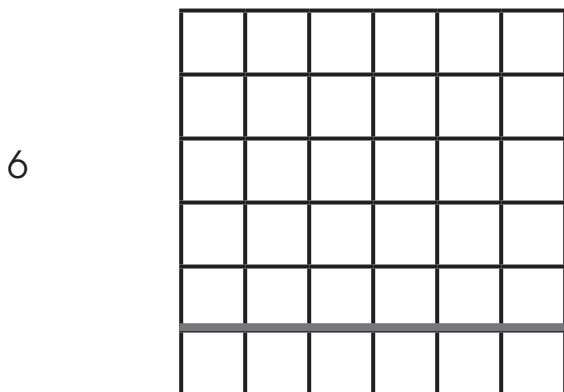
$$8 \times (\underline{1} + \underline{2})$$

$$(\underline{8} \times \underline{1}) + (\underline{8} \times \underline{2})$$

$$\underline{8} + \underline{16}$$

$$8 \times 3 = \underline{24}$$

2.) 6



$$6 \times \underline{6}$$

$$6 \times (\underline{5} + \underline{1})$$

$$(6 \times \underline{5}) + (\underline{6} \times \underline{1})$$

$$\underline{30} + \underline{6}$$

$$\underline{36} = 6 \times 6$$



Break up the factor that is circled. Complete the problem to solve.

3.)

$$\textcircled{6} \times 8$$

$$(\underline{1} + \underline{5}) \times 8$$

$$(\underline{1} \times 8) + (\underline{5} \times 8)$$

$$\underline{8} + \underline{40} = \underline{48}$$

$$6 \times 8 = \underline{48}$$

4.)

$$\textcircled{7} \times 6$$

$$(\underline{5} + \underline{2}) \times 6$$

$$(\underline{5} \times 6) + (\underline{2} \times 6)$$

$$\underline{30} + \underline{12} = \underline{42}$$

$$7 \times 6 = \underline{42}$$



5.) Anna is figuring out the area of the wall in her room. It is 6 feet wide and 8 feet tall. Choose the correct way she can solve this unknown problem.

A

$$6 + 8$$

$$(1 + 8) + (5 + 8)$$

$$8 + 13 = 21$$

B

$$8 \times 6$$

$$8 \times (3 + 3)$$

$$(8 \times 3) + (8 \times 3)$$

$$12 + 12 = 24$$

C

$$6 \times 8$$

$$(1 + 5) \times 8$$

$$(1 \times 8) + (5 \times 8)$$

$$8 + 40 = 48$$

D

$$8 \times 6$$

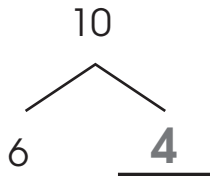
$$8 \times (1 + 5)$$

$$1 \times 8 \times 5$$

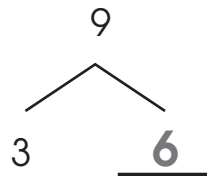
$$1 + 40 = 41$$

Break apart the numbers. Write the part.

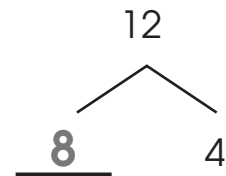
6.)



7.)



8.)





- 9.) 8 girls sold 9 boxes of pecans each for a school fundraiser. How many boxes were sold in all? Use the Make 10 Subtract the Factor strategy.

$$\begin{array}{r} 8 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 80 \\ - 8 \\ \hline \end{array}$$

$$8 \times 9 = \underline{72} \text{ boxes of pecans}$$

Use the Make 10 Subtract the Factor strategy to solve.

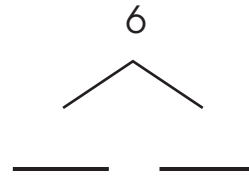
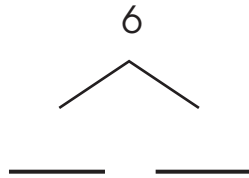
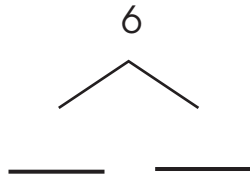
10.)

$$6 \times 9$$

$$\begin{array}{r} 6 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 60 \\ - 6 \\ \hline \end{array}$$

$$\underline{54} = 6 \times 9$$



$1 \times 9 = \underline{\quad}$

$6 \times 1 = \underline{\quad}$

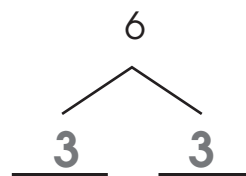
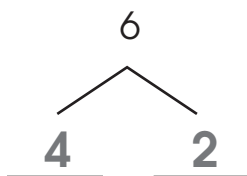
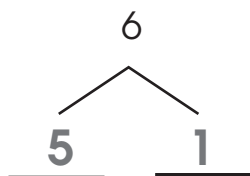
$5 \times 6 = \underline{\quad}$

$3 \times 5 = \underline{\quad}$

$5 \times 5 = \underline{\quad}$

$5 \times 8 = \underline{\quad}$

$5 \times 7 = \underline{\quad}$



$$1 \times 9 = \underline{9}$$

$$6 \times 1 = \underline{6}$$

$$5 \times 6 = \underline{30}$$

$$3 \times 5 = \underline{15}$$

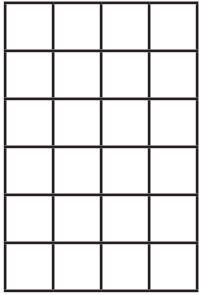
$$5 \times 5 = \underline{25}$$

$$5 \times 8 = \underline{40}$$

$$5 \times 7 = \underline{35}$$

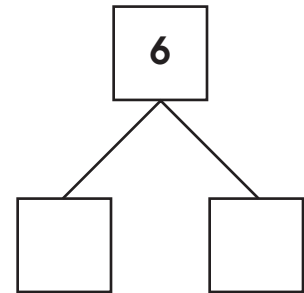
Break Apart Strategy for 6s

$$6 \times 4 = \underline{\hspace{2cm}}$$

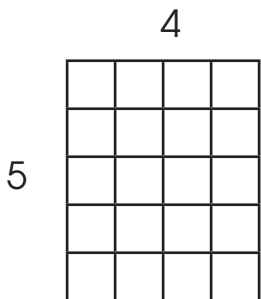
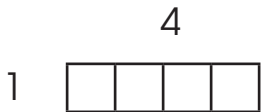


$$(\underline{\hspace{1cm}} + \underline{\hspace{1cm}}) \times 4$$

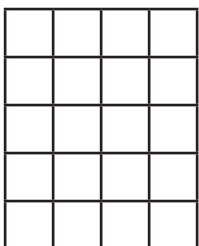
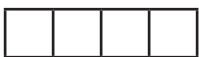
Step 1) Break apart 6 to 1 and 5.



Step 2) Multiply 1 and 5 by the other factor.



$$(\underline{\hspace{1cm}} \times 4) + (\underline{\hspace{1cm}} \times 4)$$



$$\begin{array}{r} 4 \\ + \quad \underline{\hspace{1cm}} + \underline{\hspace{1cm}} \end{array}$$

$$\begin{array}{r} 20 \\ \\ = \underline{\hspace{2cm}} \end{array}$$

Step 3) Add the products together.

Review

$$6 \times 4$$

$$(1 + 5) \times 4$$

$$(1 \times 4) + (5 \times 4)$$

$$4 + 20 = 24$$

Coach Martinez is setting up cones for a soccer obstacle course. She wants to set up 6 rows of 8 cones for her team to dribble around. How many cones does Coach Martinez need?

$$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$$

Step 1) $(\underline{\hspace{2cm}} + \underline{\hspace{2cm}}) \times \underline{\hspace{2cm}}$

Step 2) $(\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}) + (\underline{\hspace{2cm}} \times \underline{\hspace{2cm}})$

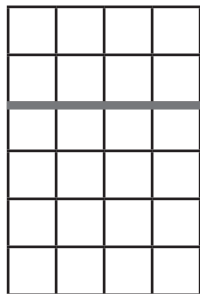
Step 3) $\underline{\hspace{2cm}} + \underline{\hspace{2cm}}$

$$6 \times 8 = \underline{\hspace{2cm}}$$



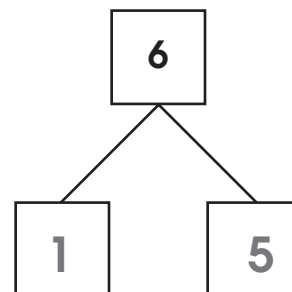
Break Apart Strategy for 6s

$$6 \times 4 = \underline{24}$$

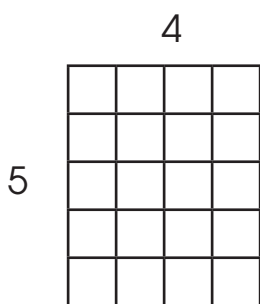


$$(\underline{1} + \underline{5}) \times 4$$

Step 1) Break apart 6 to 1 and 5.

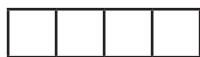


$$1 \times 4$$

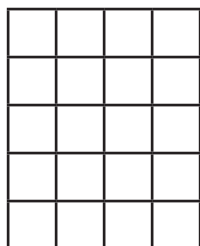


$$(\underline{1} \times 4) + (\underline{5} \times 4)$$

Step 2) Multiply 1 and 5 by the other factor.



4



+

$$\underline{4} + \underline{20}$$

20

$$= \underline{24}$$

Step 3) Add the products together.

Review

$$6 \times 4$$

$$(1 + 5) \times 4$$

$$(1 \times 4) + (5 \times 4)$$

$$4 + 20 = 24$$



Coach Martinez is setting up cones for a soccer obstacle course. She wants to set up 6 rows of 8 cones for her team to dribble around. How many cones does Coach Martinez need?

$$\underline{6} \times \underline{8}$$

Step 1) $(\underline{5} + \underline{1}) \times \underline{8}$

Step 2) $(\underline{5} \times \underline{8}) + (\underline{1} \times \underline{8})$

Step 3) $\underline{40} + \underline{8}$

$$6 \times 8 = \underline{48}$$

Break Apart Strategy for 6s

Step 1) Break 6 apart to 1 and 5.

Step 2) Multiply 1 and 5 by the other factor.

Step 3) Add the products together.

Use the Break Apart Strategy for 6s to solve the multiplication problems.

1.) $6 \times 7 = \underline{\hspace{2cm}}$

Step 1) $(\underline{\hspace{1cm}} + \underline{\hspace{1cm}}) \times 7$

Step 2) $(\underline{\hspace{1cm}} \times 7) + (\underline{\hspace{1cm}} \times 7)$

Step 3) $(\underline{\hspace{1cm}} + \underline{\hspace{1cm}}) = \underline{\hspace{2cm}}$

2.) $3 \times 6 = \underline{\hspace{2cm}}$

Step 1) $3 \times (\underline{\hspace{1cm}} + \underline{\hspace{1cm}})$

Step 2) $(\underline{\hspace{1cm}} \times 1) + (\underline{\hspace{1cm}} \times 5)$

Step 3) $\underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{2cm}}$

3.) $6 \times 6 =$ _____

Step 1) _____

Step 2) _____

Step 3) _____

Facts Tic Tac Toe

$3 \times 2 = \underline{\quad}$	$6 \times 8 = \underline{\quad}$	$3 \times 9 = \underline{\quad}$
$10 \times 6 = \underline{\quad}$	$6 \times 4 = \underline{\quad}$	$5 \times 6 = \underline{\quad}$
$2 \times 6 = \underline{\quad}$	$3 \times 6 = \underline{\quad}$	$9 \times 4 = \underline{\quad}$

Facts Tic Tac Toe

$6 \times 3 = \underline{\quad}$	$9 \times 6 = \underline{\quad}$	$5 \times 3 = \underline{\quad}$
$2 \times 6 = \underline{\quad}$	$9 \times 8 = \underline{\quad}$	$3 \times 9 = \underline{\quad}$
$6 \times 7 = \underline{\quad}$	$10 \times 3 = \underline{\quad}$	$9 \times 7 = \underline{\quad}$

Facts Tic Tac Toe

$9 \times 3 = \underline{\quad}$	$1 \times 6 = \underline{\quad}$	$8 \times 6 = \underline{\quad}$
$7 \times 6 = \underline{\quad}$	$9 \times 5 = \underline{\quad}$	$10 \times 6 = \underline{\quad}$
$5 \times 6 = \underline{\quad}$	$9 \times 2 = \underline{\quad}$	$9 \times 4 = \underline{\quad}$



Break Apart Strategy for 6s

Step 1) Break 6 apart to 1 and 5.

Step 2) Multiply 1 and 5 by the other factor.

Step 3) Add the products together.

Use the Break Apart Strategy for 6s to solve the multiplication problems.

1.) $6 \times 7 = \underline{42}$

Step 1) $(\underline{1} + \underline{5}) \times 7$

Step 2) $(\underline{1} \times 7) + (\underline{5} \times 7)$

Step 3) $(\underline{7} + \underline{35}) = \underline{42}$

2.) $3 \times 6 = \underline{18}$

Step 1) $3 \times (\underline{1} + \underline{5})$

Step 2) $(\underline{3} \times 1) + (\underline{3} \times 5)$

Step 3) $\underline{3} + \underline{15} = \underline{18}$



3.) $6 \times 6 = \underline{36}$

Step 1) $\underline{(5 + 1) \times 6}$

Step 2) $\underline{(5 \times 6) + (1 \times 6)}$

Step 3) $\underline{30 + 6 = 36}$



Facts Tic Tac Toe

$3 \times 2 = \underline{6}$	$6 \times 8 = \underline{48}$	$3 \times 9 = \underline{27}$
$10 \times 6 = \underline{60}$	$6 \times 4 = \underline{24}$	$5 \times 6 = \underline{30}$
$2 \times 6 = \underline{12}$	$3 \times 6 = \underline{18}$	$9 \times 4 = \underline{36}$



Facts Tic Tac Toe

$6 \times 3 = \underline{18}$	$9 \times 6 = \underline{54}$	$5 \times 3 = \underline{15}$
$2 \times 6 = \underline{12}$	$9 \times 8 = \underline{72}$	$3 \times 9 = \underline{27}$
$6 \times 7 = \underline{42}$	$10 \times 3 = \underline{30}$	$9 \times 7 = \underline{63}$



Facts Tic Tac Toe

$9 \times 3 = \underline{27}$	$1 \times 6 = \underline{6}$	$8 \times 6 = \underline{48}$
$7 \times 6 = \underline{42}$	$9 \times 5 = \underline{45}$	$10 \times 6 = \underline{60}$
$5 \times 6 = \underline{30}$	$9 \times 2 = \underline{18}$	$9 \times 4 = \underline{36}$



Use the Make 10 Subtract the Factor strategy to solve.

1.)

9×7

$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$

$\underline{\hspace{2cm}} - \underline{\hspace{2cm}}$

$\underline{\hspace{2cm}} = 9 \times 7$

2.)

6×9

$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$

$\underline{\hspace{2cm}} - \underline{\hspace{2cm}}$

$6 \times 9 = \underline{\hspace{2cm}}$

3.) 8 students earned 9 extra points on their projects. How many total points were earned? Use the Make 10 Subtract the Factor strategy.

$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$

$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$

$\underline{\hspace{2cm}} - \underline{\hspace{2cm}}$

$8 \times 9 = \underline{\hspace{2cm}} \text{ points}$

4.) Aaron is painting a wall that is 6 feet tall and 8 feet wide. Which expression can be used to find the area of the wall?

A $8 + 6$

B $6 + 6$

C 8×8

D 6×8

5.) Break up the factor that is circled. Complete the problem to solve.

$$\textcircled{3} \times 8$$

$$(\underline{\hspace{1cm}} + \underline{\hspace{1cm}}) \times 8$$

$$(\underline{\hspace{1cm}} \times 8) + (\underline{\hspace{1cm}} \times 8)$$

$$(\underline{\hspace{1cm}} + \underline{\hspace{1cm}}) = \underline{\hspace{1cm}}$$

$$3 \times 8 = \underline{\hspace{1cm}}$$

- 6.) Draw a line to cut the area model into two facts you know. Complete the problem to solve. Find the area of the carpet.

_____ × _____

(_____ + _____) × _____

(_____ × _____) + (_____ × _____)

_____ + _____

Use the Break Apart Strategy for 6s to solve the multiplication problem.

7.) 7×6

$7 \times (\text{_____} + \text{_____})$

$(7 \times \text{_____}) + (7 \times \text{_____})$

$\text{_____} + \text{_____} = \text{_____}$

$\text{_____} = 7 \times 6$

8.) 6×3

$(\underline{\hspace{1cm}} + \underline{\hspace{1cm}}) \times 3$

$(\underline{\hspace{1cm}} \times 3) + (\underline{\hspace{1cm}} \times 3)$

$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

$6 \times 3 = \underline{\hspace{1cm}}$

Use the Break Apart Strategy for 6s to solve the problem. Show your work.

- 9.) The bakery is open 6 days a week for 6 hours each day. How many hours is the bakery open in one week?

$\underline{\hspace{1cm}}$ hours



Use the Make 10 Subtract the Factor strategy to solve.

1.)

9×7

$$\underline{10} \times \underline{7}$$

$$\underline{70} - \underline{7}$$

$$\underline{63} = 9 \times 7$$

2.)

6×9

$$\underline{6} \times \underline{10}$$

$$\underline{60} - \underline{6}$$

$$6 \times 9 = \underline{54}$$

3.) 8 students earned 9 extra points on their projects. How many total points were earned? Use the Make 10 Subtract the Factor strategy.

$$\underline{8} \times \underline{9}$$

$$\underline{8} \times \underline{10}$$

$$\underline{80} - \underline{8}$$

$$8 \times 9 = \underline{72} \text{ points}$$



4.) Aaron is painting a wall that is 6 feet tall and 8 feet wide. Which expression can be used to find the area of the wall?

A $8 + 6$

B $6 + 6$

C 8×8

D 6×8

5.) Break up the factor that is circled. Complete the problem to solve.

$$\textcircled{3} \times 8$$

$$(\underline{2} + \underline{1}) \times 8$$

$$(\underline{2} \times 8) + (\underline{1} \times 8)$$

$$(\underline{16} + \underline{8}) = \underline{24}$$

$$3 \times 8 = \underline{24}$$



- 6.) Draw a line to cut the area model into two facts you know. Complete the problem to solve. Find the area of the carpet.

8

6

6 × 8

(5 + 1) × 8

(5 × 8) + (1 × 8)

40 + 8

48

Use the Break Apart Strategy for 6s to solve the multiplication problem.

7.) 7×6

$7 \times (\underline{1} + \underline{5})$

$(7 \times \underline{1}) + (7 \times \underline{5})$

7 + 35 = 42

42 = 7×6



8.) 6×3

$$(\underline{1} + \underline{5}) \times 3$$

$$(\underline{1} \times 3) + (\underline{5} \times 3)$$

$$\underline{3} + \underline{15} = \underline{18}$$

$$6 \times 3 = \underline{18}$$

Use the Break Apart Strategy for 6s to solve the problem. Show your work.

- 9.) The bakery is open 6 days a week for 6 hours each day. How many hours is the bakery open in one week?

$$\underline{36} \text{ hours}$$

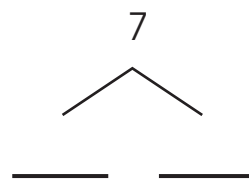
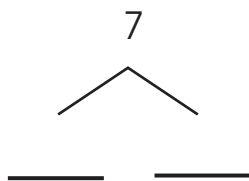
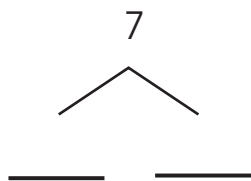
$$6 \times 6$$

$$(1 + 5) \times 6$$

$$(1 \times 6) + (5 \times 6)$$

$$6 + 30$$

$$= 36$$



$$2 \times 6 = \underline{\hspace{2cm}}$$

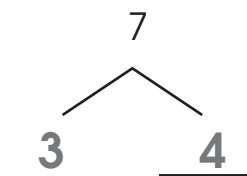
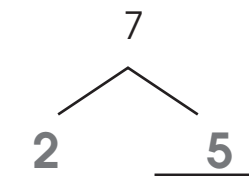
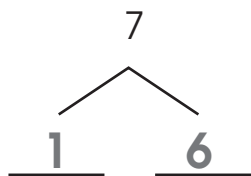
$$8 \times 2 = \underline{\hspace{2cm}}$$

$$5 \times 8 = \underline{\hspace{2cm}}$$

$$5 \times 4 = \underline{\hspace{2cm}}$$

$$5 \times 9 = \underline{\hspace{2cm}}$$

$$7 \times 5 = \underline{\hspace{2cm}}$$



$$2 \times 6 = \underline{12}$$

$$8 \times 2 = \underline{16}$$

$$5 \times 8 = \underline{40}$$

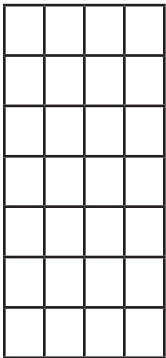
$$5 \times 4 = \underline{20}$$

$$5 \times 9 = \underline{45}$$

$$7 \times 5 = \underline{35}$$

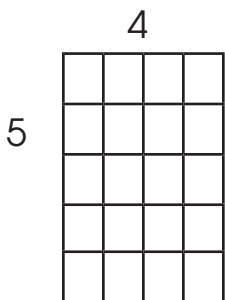
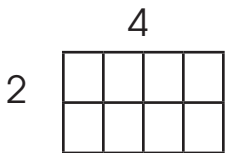
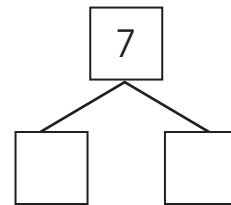
Break Apart Strategy for 7s

$$7 \times 4 = \underline{\hspace{2cm}}$$



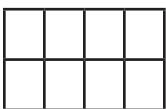
$$(\underline{\hspace{1cm}} + \underline{\hspace{1cm}}) \times 4$$

Step 1) Break apart 7 to 2 and 5.



Step 2) Multiply 2 and 5 by the other factor.

$$(\underline{\hspace{1cm}} \times 4) + (\underline{\hspace{1cm}} \times 4)$$



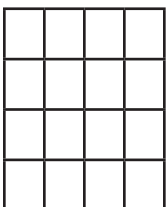
8

$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}}$$

+

$$= \underline{\hspace{1cm}}$$

Step 3) Add the products together.



20

8 friends went to a birthday party. On the way out they were told to grab a bag. Each bag had 7 prizes. How many total prizes were used to make the 8 bags?

$$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

Step 1) $(\underline{\hspace{2cm}} + \underline{\hspace{2cm}}) \times 8$

Step 2) $(\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}) + (\underline{\hspace{2cm}} \times \underline{\hspace{2cm}})$

Step 3) $\underline{\hspace{2cm}} + \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}}$

Number Family $\underline{\hspace{2cm}}, \underline{\hspace{2cm}}, \underline{\hspace{2cm}}$

There are 7 tables in the restaurant. Each table has 6 chairs. How many chairs are there in all?

$$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$$

Step 1) $(\underline{\hspace{2cm}} + \underline{\hspace{2cm}}) \times \underline{\hspace{2cm}}$

Step 2) $(\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}) + (\underline{\hspace{2cm}} \times \underline{\hspace{2cm}})$

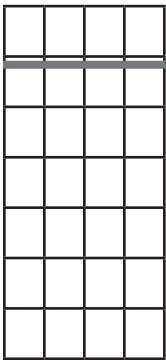
Step 3) $\underline{\hspace{2cm}} + \underline{\hspace{2cm}}$

$$\underline{\hspace{2cm}} = 7 \times 6$$



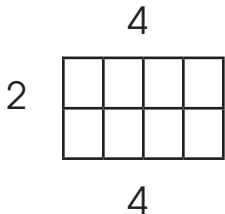
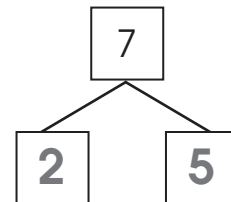
Break Apart Strategy for 7s

$$7 \times 4 = \underline{28}$$



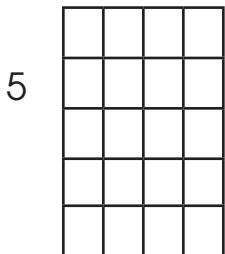
$$(\underline{2} + \underline{5}) \times 4$$

Step 1) Break apart 7 to 2 and 5.



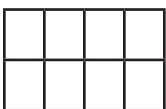
$$2 \times 4$$

Step 2) Multiply 2 and 5 by the other factor.



$$5 \times 4$$

$$(\underline{2} \times 4) + (\underline{5} \times 4)$$

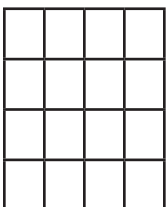


8

$$\underline{8} + \underline{20}$$

Step 3) Add the products together.

+



20

$$= \underline{28}$$



8 friends went to a birthday party. On the way out they were told to grab a bag. Each bag had 7 prizes. How many total prizes were used to make the 8 bags?

$$\underline{8} \times \underline{7} = \underline{56}$$

Step 1) $(\underline{2} + \underline{5}) \times 8$

Step 2) $(\underline{2} \times \underline{8}) + (\underline{5} \times \underline{8})$

Step 3)
$$\begin{array}{r} \underline{16} + \underline{40} \\ = \underline{56} \end{array}$$

Number Family $\underline{7}, \underline{8}, \underline{56}$

$$\underline{7 \times 8 = 56}$$

$$\underline{56 \div 7 = 8}$$

$$\underline{56 \div 8 = 7}$$



There are 7 tables in the restaurant. Each table has 6 chairs. How many chairs are there in all?

$$\underline{7} \times \underline{6}$$

Step 1) $(\underline{5} + \underline{2}) \times \underline{6}$

Step 2) $(\underline{5} \times \underline{6}) + (\underline{2} \times \underline{6})$

Step 3) $\underline{30} + \underline{12}$

$$\underline{42} = 7 \times 6 = \underline{\quad}$$

Break Apart Strategy for 7s

Step1) Break apart 7 to 2 and 5.

Step 2) Multiply 2 and 5 by the other factor.

Step3) Add the products together.

Use the Break Apart Strategy for 7s to solve the multiplication problems.

1.) $7 \times 8 = \underline{\hspace{2cm}}$

Step1) $(\underline{\hspace{1cm}} + \underline{\hspace{1cm}}) \times 8$

Step1) $(\underline{\hspace{1cm}} \times 8) + (\underline{\hspace{1cm}} \times 8)$

Step1) $(\underline{\hspace{1cm}} + \underline{\hspace{1cm}}) = \underline{\hspace{2cm}}$

2.) $7 \times 7 = \underline{\hspace{2cm}}$

Step1) $(\underline{\hspace{1cm}} + \underline{\hspace{1cm}}) \times 7$

Step1) $(\underline{\hspace{1cm}} \times 7) + (\underline{\hspace{1cm}} \times 7)$

Step1) $(\underline{\hspace{1cm}} + \underline{\hspace{1cm}}) = \underline{\hspace{2cm}}$

3.) $7 \times 3 = \underline{\hspace{2cm}}$

Step1) $(\underline{\hspace{1cm}} + \underline{\hspace{1cm}}) \times 3$

Step1) $(\underline{\hspace{1cm}} \times 3) + (\underline{\hspace{1cm}} \times 3)$

Step1) $(\underline{\hspace{1cm}} + \underline{\hspace{1cm}}) = \underline{\hspace{2cm}}$

Four in a Row

$10 \times 6 = \underline{\hspace{2cm}}$	$6 \times 4 = \underline{\hspace{2cm}}$	$9 \times 5 = \underline{\hspace{2cm}}$	$4 \times 2 = \underline{\hspace{2cm}}$
$9 \times 6 = \underline{\hspace{2cm}}$	$7 \times 3 = \underline{\hspace{2cm}}$	$4 \times 9 = \underline{\hspace{2cm}}$	$8 \times 7 = \underline{\hspace{2cm}}$
$7 \times 6 = \underline{\hspace{2cm}}$	$6 \times 6 = \underline{\hspace{2cm}}$	$3 \times 1 = \underline{\hspace{2cm}}$	$10 \times 7 = \underline{\hspace{2cm}}$
$5 \times 5 = \underline{\hspace{2cm}}$	$7 \times 7 = \underline{\hspace{2cm}}$	$9 \times 7 = \underline{\hspace{2cm}}$	$8 \times 9 = \underline{\hspace{2cm}}$

Four in a Row

$5 \times 4 = \underline{\quad}$	$6 \times 9 = \underline{\quad}$	$8 \times 9 = \underline{\quad}$	$9 \times 7 = \underline{\quad}$
$10 \times 8 = \underline{\quad}$	$8 \times 7 = \underline{\quad}$	$10 \times 4 = \underline{\quad}$	$6 \times 3 = \underline{\quad}$
$4 \times 9 = \underline{\quad}$	$9 \times 6 = \underline{\quad}$	$8 \times 1 = \underline{\quad}$	$2 \times 8 = \underline{\quad}$
$5 \times 9 = \underline{\quad}$	$7 \times 7 = \underline{\quad}$	$10 \times 9 = \underline{\quad}$	$6 \times 6 = \underline{\quad}$



Break Apart Strategy for 7s

Step1) Break apart 7 to 2 and 5.

Step 2) Multiply 2 and 5 by the other factor.

Step3) Add the products together.

Use the Break Apart Strategy for 7s to solve the multiplication problems.

1.) $7 \times 8 = \underline{56}$

Step1) $(\underline{5} + \underline{2}) \times 8$

Step1) $(\underline{5} \times 8) + (\underline{2} \times 8)$

Step1) $(\underline{40} + \underline{16}) = \underline{56}$

2.) $7 \times 7 = \underline{49}$

Step1) $(\underline{2} + \underline{5}) \times 7$

Step1) $(\underline{2} \times 7) + (\underline{5} \times 7)$

Step1) $(\underline{14} + \underline{35}) = \underline{49}$



3.) $7 \times 3 = \underline{21}$

Step1) $\underline{(2 + 5) \times 3}$

Step1) $\underline{(2 \times 3) + (5 \times 3)}$

Step1) $\underline{6 + 15 = 21}$



Four in a Row

$10 \times 6 = \underline{60}$	$6 \times 4 = \underline{24}$	$9 \times 5 = \underline{45}$	$4 \times 2 = \underline{8}$
$9 \times 6 = \underline{54}$	$7 \times 3 = \underline{21}$	$4 \times 9 = \underline{36}$	$8 \times 7 = \underline{56}$
$7 \times 6 = \underline{42}$	$6 \times 6 = \underline{36}$	$3 \times 1 = \underline{3}$	$10 \times 7 = \underline{70}$
$5 \times 5 = \underline{25}$	$7 \times 7 = \underline{49}$	$9 \times 7 = \underline{63}$	$8 \times 9 = \underline{72}$



Four in a Row

$5 \times 4 = \underline{20}$	$6 \times 9 = \underline{54}$	$8 \times 9 = \underline{72}$	$9 \times 7 = \underline{63}$
$10 \times 8 = \underline{80}$	$8 \times 7 = \underline{56}$	$10 \times 4 = \underline{40}$	$6 \times 3 = \underline{18}$
$4 \times 9 = \underline{36}$	$9 \times 6 = \underline{54}$	$8 \times 1 = \underline{8}$	$2 \times 8 = \underline{16}$
$5 \times 9 = \underline{45}$	$7 \times 7 = \underline{49}$	$10 \times 9 = \underline{90}$	$6 \times 6 = \underline{36}$

Use the Break Apart strategy for 7s to solve.

1.) $7 \times 4 = \underline{\hspace{2cm}}$

Step 1) $(\underline{\hspace{2cm}} + 5) \times 4$

Step 2) $\underline{\hspace{4cm}}$

Step 3) $\underline{\hspace{4cm}}$

2.) $8 \times 7 = \underline{\hspace{2cm}}$

Step 1) $\underline{\hspace{4cm}}$

Step 2) $(8 \times 2) + (\underline{\hspace{2cm}} \times 5)$

Step 3) $\underline{\hspace{4cm}}$

3.) $7 \times 6 = \underline{\hspace{2cm}}$

Step 1) $\underline{\hspace{4cm}}$

Step 2) $\underline{\hspace{4cm}}$

Step 3) $\underline{\hspace{2cm}} + 30 = 42$

Use the Break Apart Strategy for 7s to solve the problem. Show your work.

- 4.) Marvin gets paid \$7 for every lawn he mows. In the month of June, he mowed 8 lawns. How much money did Marvin make in June?

\$ _____ in June

- 5.) There are 8 boats. Each boat holds 7 people. How many total people can 8 boats hold? Use the Break Apart Strategy for 7s to solve. Show your work.

$$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

Step 1) $(\underline{\hspace{2cm}} + \underline{\hspace{2cm}}) \times 8$

Step 2) $(\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}) + (\underline{\hspace{2cm}} \times \underline{\hspace{2cm}})$

Step 3) $\underline{\hspace{2cm}} + \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}}$

Use the Break Apart Strategy for 6s to solve the multiplication problems.

6.) $3 \times 6 = \underline{\hspace{2cm}}$

$3 \times (\underline{\hspace{1cm}} + \underline{\hspace{1cm}})$

$(3 \times \underline{\hspace{1cm}}) + (3 \times \underline{\hspace{1cm}})$

$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

7.) $6 \times 8 = \underline{\hspace{2cm}}$

$(\underline{\hspace{1cm}} + \underline{\hspace{1cm}}) \times 8$

$(\underline{\hspace{1cm}} \times 8) + (\underline{\hspace{1cm}} \times 8)$

$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

Break up the factor that is circled. Complete the problem to solve.

8.) $(4) \times 6$

$(\underline{\hspace{1cm}} + \underline{\hspace{1cm}}) \times 6$

$(\underline{\hspace{1cm}} \times 6) + (\underline{\hspace{1cm}} \times 6)$

$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

$4 \times 6 = \underline{\hspace{2cm}}$

Use the Make 10 Subtract the Factor strategy to solve.

9.) 8×9

$$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$$

$$\underline{\hspace{2cm}} - \underline{\hspace{2cm}}$$

$$\underline{\hspace{2cm}} = 8 \times 9$$

10.) 9×7

$$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$$

$$\underline{\hspace{2cm}} - \underline{\hspace{2cm}}$$

$$9 \times 7 = \underline{\hspace{2cm}}$$



Use the Break Apart strategy for 7s to solve.

1.) $7 \times 4 = \underline{28}$

Step 1) $(\underline{2} + 5) \times 4$

Step 2) $\underline{(2 \times 4) + (5 \times 4)}$

Step 3) $\underline{8 + 20 = 28}$

2.) $8 \times 7 = \underline{56}$

Step 1) $\underline{8 \times (2 + 5)}$

Step 2) $(8 \times 2) + (\underline{8} \times 5)$

Step 3) $\underline{16 + 40 = 56}$

3.) $7 \times 6 = \underline{42}$

Step 1) $\underline{(2 + 5) \times 6}$

Step 2) $\underline{(2 \times 6) + (5 \times 6)}$

Step 3) $\underline{12} + 30 = 42$



Use the Break Apart Strategy for 7s to solve the problem. Show your work.

- 4.) Marvin gets paid \$7 for every lawn he mows. In the month of June, he mowed 8 lawns. How much money did Marvin make in June?

\$ 56 in June

$$7 \times 8$$

$$(5 + 2) \times 8$$

$$(5 \times 8) + (2 \times 8)$$

$$40 + 16 = 56$$

- 5.) There are 8 boats. Each boat holds 7 people. How many total people can 8 boats hold? Use the Break Apart Strategy for 7s to solve. Show your work.

$$\underline{7} \times \underline{8} = \underline{56}$$

Step 1) $(\underline{5} + \underline{2}) \times 8$

Step 2) $(\underline{5} \times \underline{8}) + (\underline{2} \times \underline{8})$

Step 3) $\underline{40} + \underline{16}$
 $= \underline{56}$



Use the Break Apart Strategy for 6s to solve the multiplication problems.

6.) $3 \times 6 = \underline{18}$

$3 \times (\underline{5} + \underline{1})$

$(3 \times \underline{5}) + (3 \times \underline{1})$

$\underline{15} + \underline{3} = \underline{18}$

7.) $6 \times 8 = \underline{48}$

$(\underline{1} + \underline{5}) \times 8$

$(\underline{1} \times 8) + (\underline{5} \times 8)$

$\underline{8} + \underline{40} = \underline{48}$

Break up the factor that is circled. Complete the problem to solve.

8.) $(\textcircled{4}) \times 6$

$(\underline{2} + \underline{2}) \times 6$

$(\underline{2} \times 6) + (\underline{2} \times 6)$

$\underline{12} + \underline{12} = \underline{24}$

$4 \times 6 = \underline{24}$



Use the Make 10 Subtract the Factor strategy to solve.

9.) 8×9

$$\underline{8} \times \underline{10}$$

$$\underline{80} - \underline{8}$$

$$\underline{72} = 8 \times 9$$

10.) 9×7

$$\underline{10} \times \underline{7}$$

$$\underline{70} - \underline{7}$$

$$9 \times 7 = \underline{63}$$

$$3 \times 7$$

$$(\text{ } \times \text{ }) + (\text{ } \times \text{ })$$

$$\text{ } + \text{ } = \text{ }$$

$$3 \times 7 = \text{ }$$

Number Family , ,

$$9 \times 6$$

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} - \underline{\quad} = \underline{\quad}$$

$$9 \times 6 = \underline{\quad}$$

Number Family , ,



$$3 \times 7$$

$$(\underline{3} \times \underline{2}) + (\underline{3} \times \underline{5})$$

$$\underline{6} + \underline{15} = \underline{21}$$

$$3 \times 7 = \underline{21}$$

Number Family 3 , 7 , 21

$$\underline{7 \times 3 = 21}$$

$$\underline{21 \div 7 = 3}$$

$$\underline{21 \div 3 = 7}$$



$$9 \times 6$$

$$\underline{10} \times \underline{6} = \underline{60}$$

$$\underline{60} - \underline{6} = \underline{54}$$

$$9 \times 6 = \underline{54}$$

Number Family $\underline{6}$, $\underline{9}$, $\underline{54}$

$$\underline{6 \times 9 = 54}$$

$$\underline{54 \div 6 = 9}$$

$$\underline{54 \div 9 = 6}$$

Round Robin Practice

Step 1	Step 2
Step 3	Answer

Step 1	Step 2
Step 3	Answer

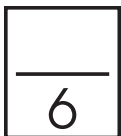


Round Robin Practice

Step 1	Step 2
Step 3	Answer

Step 1	Step 2
Step 3	Answer

Answers will vary.



Use a strategy to solve.

1.) $9 \times 3 = \underline{\hspace{2cm}}$

2.) $6 \times 8 = \underline{\hspace{2cm}}$

3.) $6 \times 6 = \underline{\hspace{2cm}}$

4.) $7 \times 7 = \underline{\hspace{2cm}}$

5.) $3 \times 6 = \underline{\hspace{2cm}}$

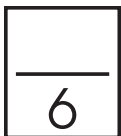
6.) On the math test Nancy was solving 8×7 . She remembered to break apart 7 into 2 and 5 but then got stuck. What is Nancy's next step?

A multiply 8×2
and 8×5

B add $2 + 5$

C multiply 7×2
and 8×5

D add $8 + 2$
plus 5



Use a strategy to solve.

1.) $9 \times 3 = \underline{27}$

$$10 \times 3 = 30$$

$$30 - 3 = 27$$

2.) $6 \times 8 = \underline{48}$

$$(5 \times 8) + (1 \times 8)$$

$$40 + 8 = 48$$

3.) $6 \times 6 = \underline{36}$

$$(5 \times 6) + (1 \times 6)$$

$$30 + 6 = 36$$

4.) $7 \times 7 = \underline{49}$

$$(5 \times 7) + (2 \times 7)$$

$$35 + 14 = 49$$

5.) $3 \times 6 = \underline{18}$

$$(3 \times 5) + (3 \times 1)$$

$$15 + 3 = 18$$

Strategies may vary.

6.) On the math test Nancy was solving 8×7 . She remembered to break apart 7 into 2 and 5 but then got stuck. What is Nancy's next step?

A multiply 8×2
and 8×5

B add $2 + 5$

C multiply 7×2
and 8×5

D add $8 + 2$
plus 5

Complete the list of numbers.

1.) 2, _____, 6, 8, 10, _____, _____, 16, 18, _____, _____, _____

2.) 26, 28, 30, _____, _____, _____, 38, _____, 42, _____, _____

3.) 52, _____, _____, 58, 60, 62, _____, _____, _____, 70

Solve.

4.) $5 + 5 =$ _____

5.) $3 + 3 =$ _____

6.) $8 + 8 =$ _____

7.) $6 + 6 =$ _____

8.) $12 + 12 =$ _____

9.) $15 + 15 =$ _____



Complete the list of numbers.

1.) 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24

2.) 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46

3.) 52, 54, 56, 58, 60, 62, 64, 66, 68, 70

Solve.

4.) $5 + 5 = \underline{10}$

5.) $3 + 3 = \underline{6}$

6.) $8 + 8 = \underline{16}$

7.) $6 + 6 = \underline{12}$

8.) $12 + 12 = \underline{24}$

9.) $15 + 15 = \underline{30}$

Read and solve.

- 1.) Asheem was doubling a length of rope for his project. The rope was 16 inches long. He said the doubled length would be 23 inches. Is he correct?

Double the tens, double the ones, then put it back together.

- 2.) What is 18 doubled?

Double the tens = _____

Double the ones = _____

Put it together = _____

- 3.) What is 34 doubled?

Double the tens = _____

Double the ones = _____

Put it together = _____

Doubles Doom

Materials needed:

- 2 6-sided number cubes
- Calculator
- Pencil

Directions:

2 players

1. Player 1 rolls the number cubes and adds up the dots. The player then multiplies the number of dots times 2 and records the multiplication fact below.
2. Then Player 2 rolls, adds up the dots, and multiplies by 2. The player records the fact on their sheet.
3. If a player rolls doubles on the number cubes, their score for that round is 0.
4. Each player has 5 turns. At the end of 5 turns the players each add up the products for the 5 rounds. The player with the highest score wins.

Roll 1

Answer _____

Roll 2

Answer _____

Roll 3

Answer _____

Roll 4

Answer _____

Roll 5

Answer _____

Total Score _____



Read and solve.

- 1.) Asheem was doubling a length of rope for his project. The rope was 16 inches long. He said the doubled length would be 23 inches. Is he correct?

No, the doubled length would be 32 inches.

Double the tens, double the ones, then put it back together.

- 2.) What is 18 doubled?

Double the tens = 20

Double the ones = 16

Put it together = 36

- 3.) What is 34 doubled?

Double the tens = 60

Double the ones = 8

Put it together = 68



Doubles Doom

Materials needed:

- 2 6-sided number cubes
- Calculator
- Pencil

Directions:

2 players

1. Player 1 rolls the number cubes and adds up the dots. The player then multiplies the number of dots times 2 and records the multiplication fact below.
2. Then Player 2 rolls, adds up the dots, and multiplies by 2. The player records the fact on their sheet.
3. If a player rolls doubles on the number cubes, their score for that round is 0.
4. Each player has 5 turns. At the end of 5 turns the players each add up the products for the 5 rounds. The player with the highest score wins.

answers will vary

Roll 1 Answer _____

Roll 2 Answer _____

Roll 3 Answer _____

Roll 4 Answer _____

Roll 5 Answer _____

Total Score _____

Double the tens, double the ones, then put it back together.

1.) What is 32 doubled?

Double the tens = _____

Double the ones = _____

Put it together = _____

2.) What is 28 doubled?

Double the tens = _____

Double the ones = _____

Put it together = _____

3.) What is 64 doubled?

Double the tens = _____

Double the ones = _____

Put it together = _____

Double each number.

4.) $17 \times 2 =$ _____

5.) $25 \times 2 =$ _____

6.) $2 \times 15 =$ _____

7.) $2 \times 36 =$ _____

Solve.

- 8.) A 4-year-old child will have doubled in length since the time of birth.
If a baby is born 19 inches long, by 4 years, how long will the child be?

Choose the answer that shows the length of the baby in 4 years.

A 38 inches

B 28 inches

C 48 inches

D 21 inches



Double the tens, double the ones, then put it back together.

1.) What is 32 doubled?

Double the tens = 60

Double the ones = 4

Put it together = 64

2.) What is 28 doubled?

Double the tens = 40

Double the ones = 16

Put it together = 56

3.) What is 64 doubled?

Double the tens = 120

Double the ones = 8

Put it together = 128



Double each number.

4.) $17 \times 2 = \underline{34}$

5.) $25 \times 2 = \underline{50}$

6.) $2 \times 15 = \underline{30}$

7.) $2 \times 36 = \underline{72}$

Solve.

- 8.) A 4-year-old child will have doubled in length since the time of birth.
If a baby is born 19 inches long, by 4 years, how long will the child be?

Choose the answer that shows the length of the baby in 4 years.

A 38 inches

B 28 inches

C 48 inches

D 21 inches

1.)

A $(4 \times 2) \times 5$	B $4 \times (2 \times 5)$
----------------------------------	----------------------------------

2.)

$(2 \times 3) \times 4$	$2 \times (3 \times 4)$
-------------------------	-------------------------



1.)

A $(4 \times 2) \times 5$ $8 \times 5 = 40$	B $4 \times (2 \times 5)$ $4 \times 10 = 40$
---	--

2.)

$(2 \times 3) \times 4$ $6 \times 4 = 24$	$2 \times (3 \times 4)$ $2 \times 12 = 24$
--	---



Solve.

1.) $(5 \times 5) \times 2$

\swarrow

_____ \times _____

\swarrow

2.) $5 \times (5 \times 2)$

\swarrow

_____ \times _____

\swarrow

3.) $(3 \times 5) \times 2$

\swarrow

_____ \times _____

\swarrow

4.) $3 \times (5 \times 2)$

\swarrow

_____ \times _____

\swarrow

5.) On problems 3 and 4, which way worked best for you to solve? Explain why.

Draw parentheses around the two factors you choose to multiply first, then solve.

6.) $2 \times 2 \times 6$

7.) $4 \times 3 \times 3$

8.) $5 \times 5 \times 4$

9.) To find the volume of a box, multiply the length times the width times the height. What is the volume of a box that is 3 cm in length, 2 cm in width, and 5 cm in height? Choose the answer that finds the volume of the box.

A

$$\begin{array}{c} (3 \times 2) \times 5 \\ \swarrow \searrow \\ 6 \times 5 \\ \swarrow \searrow \\ 30 \text{ cm}^3 \end{array}$$

C

$$\begin{array}{c} (3 \times 2) - 5 \\ \swarrow \searrow \\ 6 - 5 \\ \swarrow \searrow \\ 1 \text{ cm}^3 \end{array}$$

B

$$\begin{array}{c} (3 \times (2) + 5) \\ \swarrow \searrow \\ 6 \times 7 \\ \swarrow \searrow \\ 13 \text{ cm}^3 \end{array}$$

D

$$\begin{array}{c} (3 \times 2) + 5 \\ \swarrow \searrow \\ 6 + 5 \\ \swarrow \searrow \\ 11 \text{ cm}^3 \end{array}$$



Solve.

1.) $(5 \times 5) \times 2$

$$\begin{array}{r} \swarrow \searrow \\ 25 \times 2 \\ \hline 50 \end{array}$$

2.) $5 \times (5 \times 2)$

$$\begin{array}{r} \swarrow \searrow \\ 5 \times 10 \\ \hline 50 \end{array}$$

3.) $(3 \times 5) \times 2$

$$\begin{array}{r} \swarrow \searrow \\ 15 \times 2 \\ \hline 30 \end{array}$$

4.) $3 \times (5 \times 2)$

$$\begin{array}{r} \swarrow \searrow \\ 3 \times 10 \\ \hline 30 \end{array}$$

5.) On problems 3 and 4, which way worked best for you to solve? Explain why.

Answers will vary.



Draw parentheses around the two factors you choose to multiply first then solve.

6.) $2 \times 2 \times 6$

$(2 \times 2) \times 6$ or $2 \times (2 \times 6)$

4×6

2×12

24

24

7.) $4 \times 3 \times 3$

$(4 \times 3) \times 3$ or $4 \times (3 \times 3)$

12×3

4×9

36

36

8.) $5 \times 5 \times 4$

$(5 \times 5) \times 4$ or $5 \times (5 \times 4)$

25×4

5×20

100

100



9.) To find the volume of a box, multiply the length times the width times the height. What is the volume of a box that is 3 cm in length, 2 cm in width, and 5 cm in height? Choose the answer that finds the volume of the box.

A

$$(3 \times 2) \times 5$$



$$6 \times 5$$



$$30 \text{ cm}^3$$

C

$$(3 \times 2) - 5$$



$$6 - 5$$



$$1 \text{ cm}^3$$

B

$$(3 \times (2) + 5$$



$$6 \times 7$$



$$13 \text{ cm}^3$$

D

$$(3 \times 2) + 5$$



$$6 + 5$$



$$11 \text{ cm}^3$$

Double the following 2-digit numbers:

1.) $2 \times 12 = \underline{\quad}$

2.) $2 \times 24 = \underline{\quad}$

3.) $2 \times 28 = \underline{\quad}$

4.) $2 \times 16 = \underline{\quad}$

5.) $2 \times 36 = \underline{\quad}$

Regroup the factors, then double to find the answer.

1.) $3 \times 2 \times 5 = \underline{\quad}$

$(\underline{\quad} \times \underline{\quad}) \times \underline{\quad} = \underline{\quad}$

2.) $2 \times 2 \times 7 = \underline{\quad}$

$(\underline{\quad} \times \underline{\quad}) \times \underline{\quad} = \underline{\quad}$

3.) $1 \times 2 \times 3 = \underline{\quad}$

$(\underline{\quad} \times \underline{\quad}) \times \underline{\quad} = \underline{\quad}$

4.) $8 \times 5 \times 2 = \underline{\quad}$

$(\underline{\quad} \times \underline{\quad}) \times \underline{\quad} = \underline{\quad}$



Double the following 2-digit numbers:

1.) $2 \times 12 = \underline{24}$

2.) $2 \times 24 = \underline{48}$

3.) $2 \times 28 = \underline{56}$

4.) $2 \times 16 = \underline{32}$

5.) $2 \times 36 = \underline{72}$

Regroup the factors, then double to find the answer.

1.) $3 \times 2 \times 5 = \underline{30}$

($\underline{3} \times \underline{2}$) $\times \underline{5} = \underline{30}$

2.) $2 \times 2 \times 7 = \underline{28}$

($\underline{2} \times \underline{2}$) $\times \underline{7} = \underline{28}$

3.) $1 \times 2 \times 3 = \underline{6}$

($\underline{1} \times \underline{2}$) $\times \underline{3} = \underline{6}$

4.) $8 \times 5 \times 2 = \underline{80}$

($\underline{8} \times \underline{5}$) $\times \underline{2} = \underline{80}$

$$4 \times 6$$



Step 1) Think of 4 as 2×2 .

Step 2) Double the other factor.

Step 3) Double the product.

$$6 \times \underline{\quad\quad} = 24$$



Step1) Think of 4 as 2×2 .

Step 2) Double the other factor.

Step 3) Double the product.

$$12 \div \underline{\quad} = 4$$



$$4 \times 6$$



2 groups of 2 columns of 6

Step1) Think of 4 as 2×2 . $\underline{2 \times 2 \times 6}$

Step 2) Double the other factor. $\underline{2 \times 6 = 12}$

Step 3) Double the product. $\underline{2 \times 12 = 24}$

$$6 \times \underline{4} = 24$$



$$\underline{3 \times 4}$$



2 groups of 2 columns of 3

Step 1) Think of 4 as 2×2 .

$$\underline{2 \times 2 \times 3}$$

Step 2) Double the other factor.

$$\underline{2 \times 3 = 6}$$

Step 3) Double the product.

$$\underline{2 \times 6 = 12}$$

$$12 \div \underline{3} = 4$$

Doubling Strategy

Step 1) Think of 4 as 2×2 .

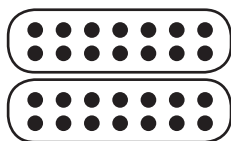
Step 2) Double the other factor.

Step 3) Double the product.

Solve using the doubling strategy.

1.)

7×4



$7 \times \underline{\quad} \times \underline{\quad}$

$7 \times 2 = \underline{\quad}$

$\underline{\quad} \times 2 = \underline{\quad}$

2.)

4×8

$2 \times \underline{\quad} \times \underline{\quad}$

$\underline{\quad} \times 8 = \underline{\quad}$

$\underline{\quad} \times 16 = \underline{\quad}$

3.)

4×4



4.)

4×6

$\underline{\quad} \times \underline{\quad} \times 6$

$2 \times 6 = \underline{\quad}$

$\underline{\quad} \times 2 = \underline{\quad}$

5.) $28 \div 7 = \underline{\quad}$

6.) $16 \div 4 = \underline{\quad}$



Doubling Strategy

Step 1) Think of 4 as 2×2 .

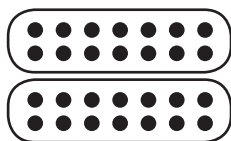
Step 2) Double the other factor.

Step 3) Double the product.

Solve using the doubling strategy.

1.)

7×4



$7 \times \underline{2} \times \underline{2}$

$7 \times 2 = \underline{14}$

$\underline{14} \times 2 = \underline{28}$

2.)

4×8

$2 \times \underline{2} \times \underline{8}$

$\underline{2} \times 8 = \underline{16}$

$\underline{2} \times 16 = \underline{32}$

3.)

4×4



$\underline{2 \times 2 \times 4}$

$\underline{2 \times 4 = 8}$

$\underline{8 \times 2 = 16}$

4.)

4×6

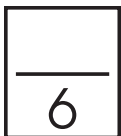
$\underline{2} \times \underline{2} \times 6$

$2 \times 6 = \underline{12}$

$\underline{12} \times 2 = \underline{24}$

5.) $28 \div 7 = \underline{4}$

6.) $16 \div 4 = \underline{4}$



Use the doubling strategy to solve.

Step 1) Think of 4 as 2×2 .

Step 2) Double the other factor.

Step 3) Double the product.

Solve using the doubling strategy.

1.) $4 \times 3 = \underline{\hspace{2cm}}$

2.) $7 \times 4 = \underline{\hspace{2cm}}$

3.) $6 \times 4 = \underline{\hspace{2cm}}$

4.) $8 \times 4 = \underline{\hspace{2cm}}$

5.) $4 \times 4 = \underline{\hspace{2cm}}$

Solve.

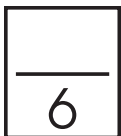
6.) The animal shelter has 4 times more dogs than cats. If there are 8 cats, how many dogs are at the shelter? Choose the answer that shows how many dogs are at the shelter.

A 4 dogs

B 12 dogs

C 16 dogs

D 32 dogs



Use the doubling strategy to solve.

Step 1) Think of 4 as 2×2 .

Step 2) Double the other factor.

Step 3) Double the product.

Solve using the doubling strategy.

1.) $4 \times 3 = \underline{12}$

$\underline{2 \times 2 \times 3}$

$\underline{2 \times 3 = 6}$

$\underline{6 \times 2 = 12}$

2.) $7 \times 4 = \underline{28}$

$\underline{7 \times 2 \times 2}$

$\underline{7 \times 2 = 14}$

$\underline{14 \times 2 = 28}$

3.) $6 \times 4 = \underline{24}$

$\underline{6 \times 2 \times 2}$

$\underline{6 \times 2 = 12}$

$\underline{12 \times 2 = 24}$

4.) $8 \times 4 = \underline{32}$

$\underline{8 \times 2 \times 2}$

$\underline{8 \times 2 = 16}$

$\underline{16 \times 2 = 32}$



5.) $4 \times 4 = \underline{16}$

$$\underline{4 \times 2 \times 2}$$

$$\underline{4 \times 2 = 8}$$

$$\underline{8 \times 2 = 16}$$

Solve.

6.) The animal shelter has 4 times more dogs than cats. If there are 8 cats, how many dogs are at the shelter? Choose the answer that shows how many dogs are at the shelter.

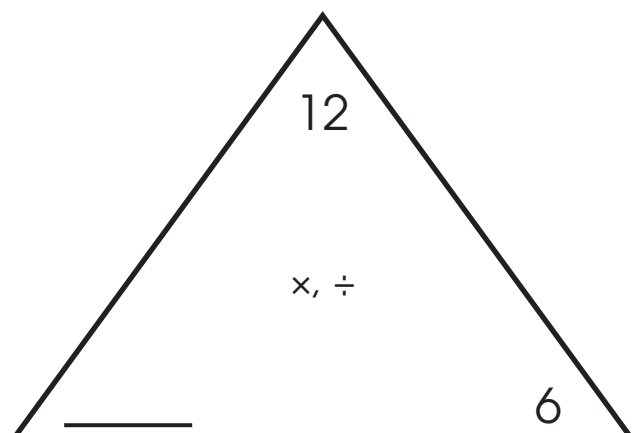
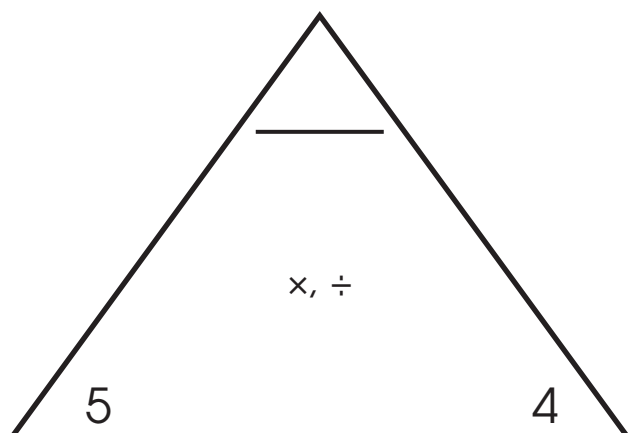
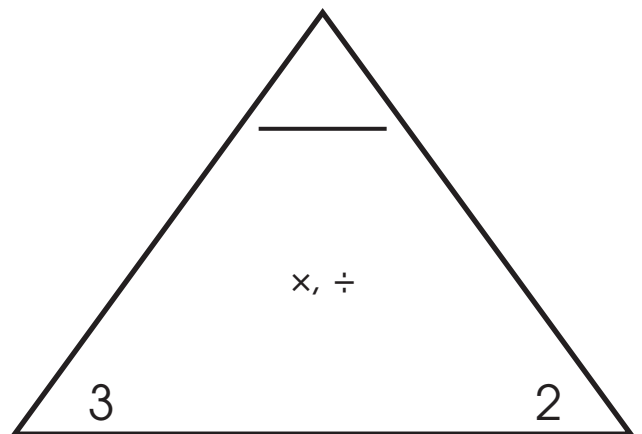
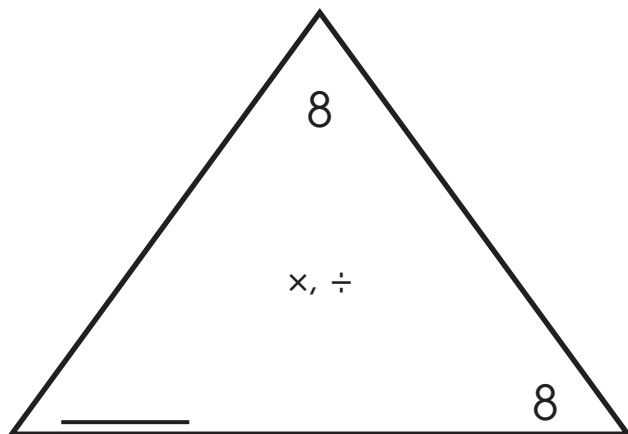
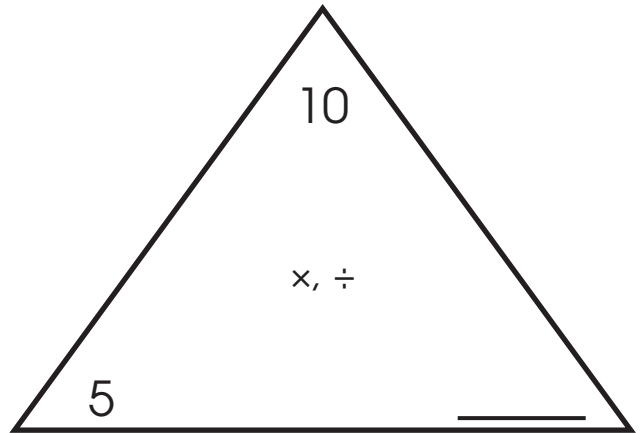
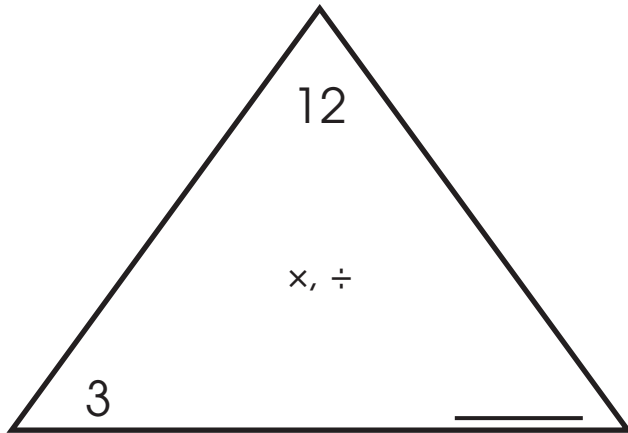
A 4 dogs

B 12 dogs

C 16 dogs

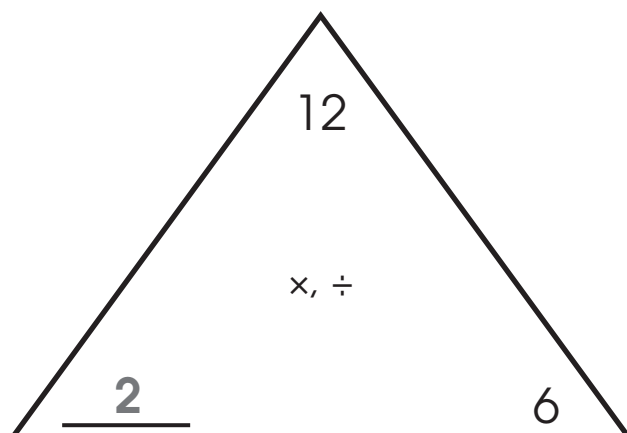
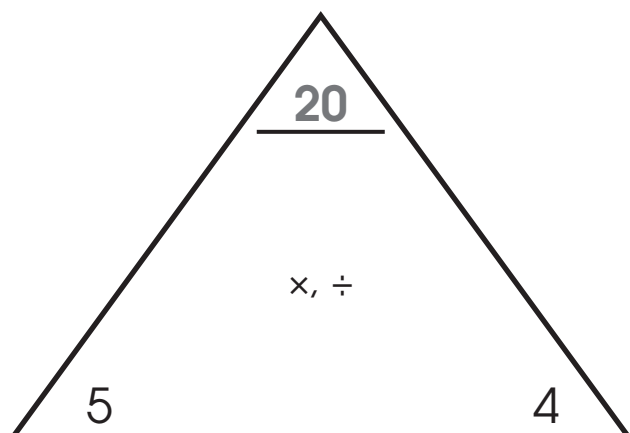
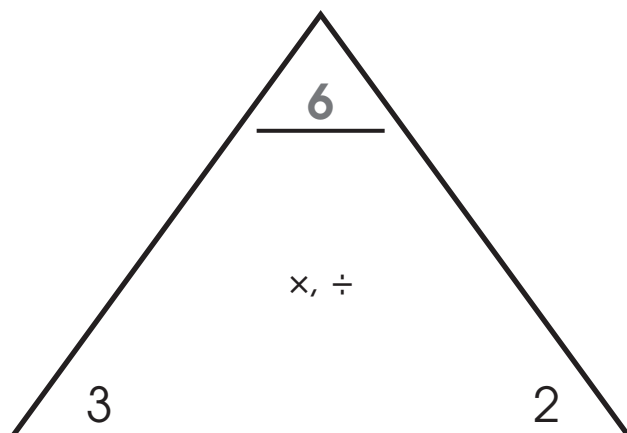
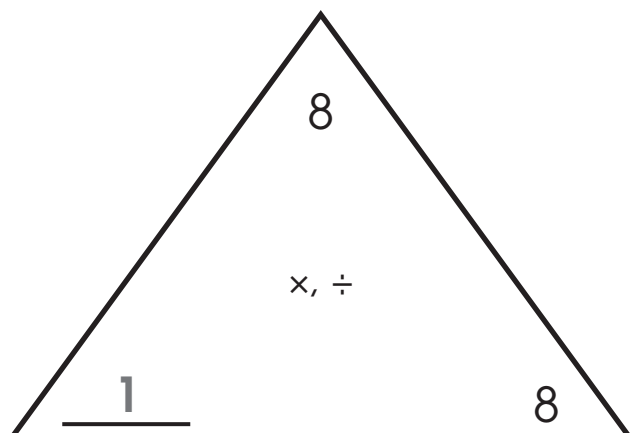
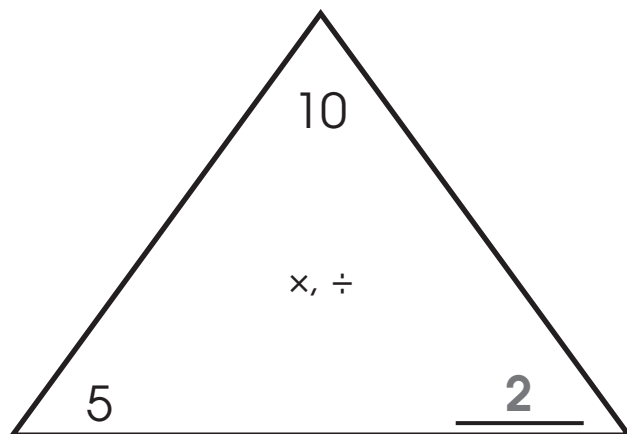
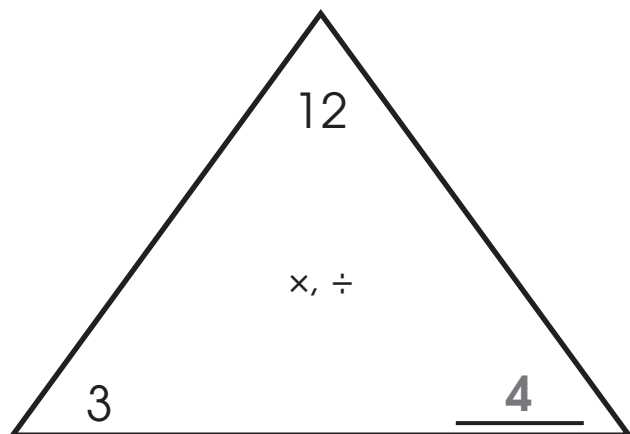
☒ D 32 dogs

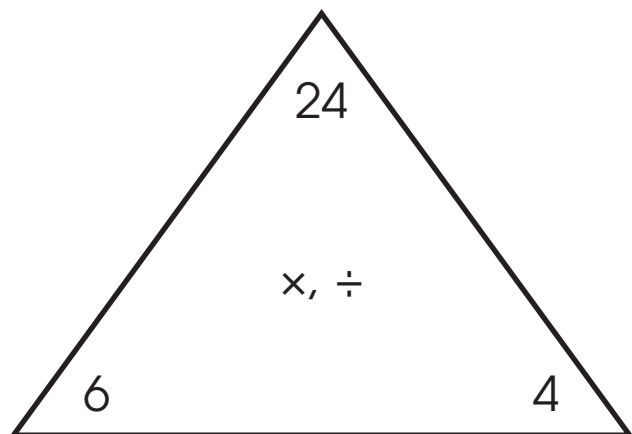
Fill in the missing number.

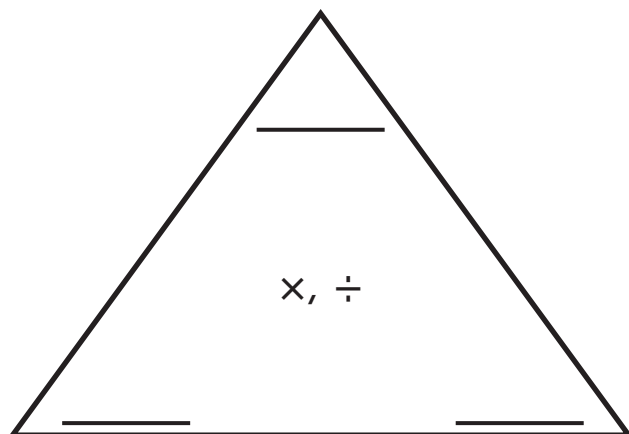




Fill in the missing number.







$$8 \times 8 = 64$$

$$64 \div 8 = 8$$

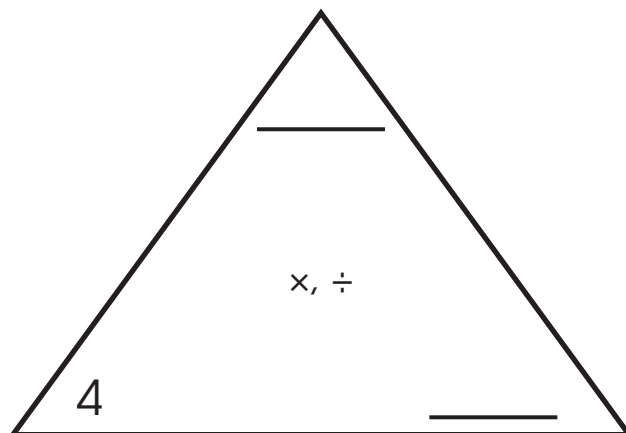
Doubling Strategy

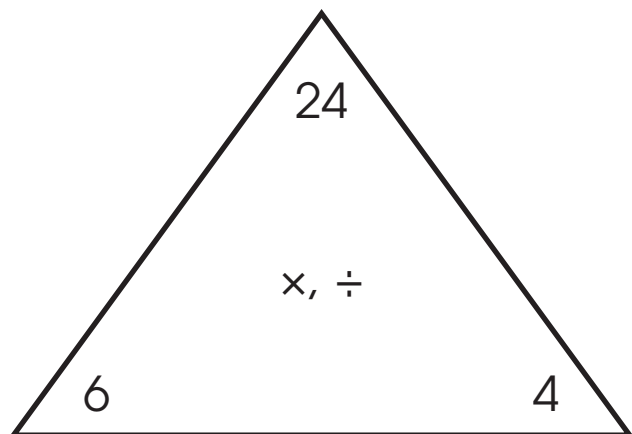
Step 1) _____

Step 2) _____

Step 3) _____

$$4 \times 7$$



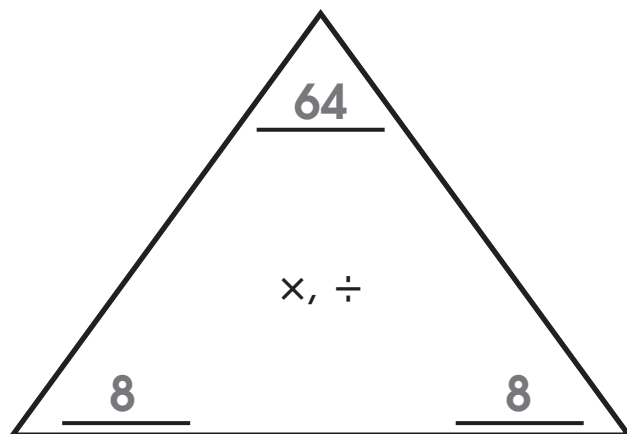


$$\underline{4 \times 6 = 24}$$

$$\underline{6 \times 4 = 24}$$

$$\underline{24 \div 6 = 4}$$

$$\underline{24 \div 4 = 6}$$



$$8 \times 8 = 64$$

$$64 \div 8 = 8$$

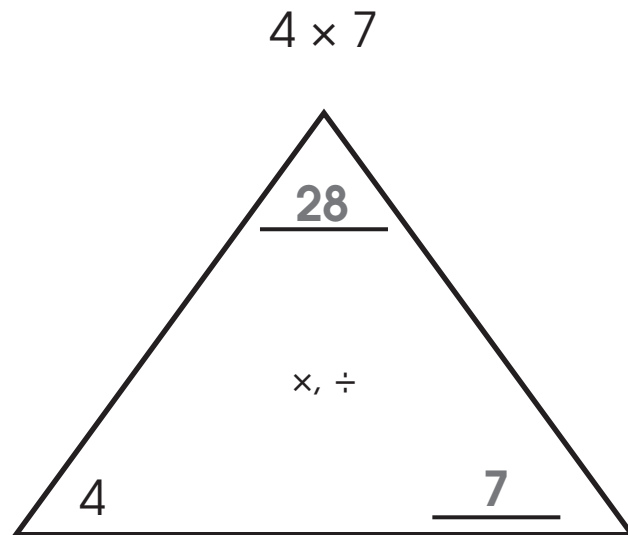


Doubling Strategy

Step 1) Think of 4 as 2×2 .

Step 2) Double the other factor.

Step 3) Double the product.



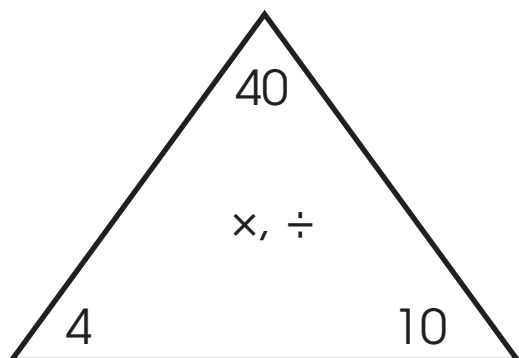
$$7 \times 4 = 28$$

$$28 \div 4 = 7$$

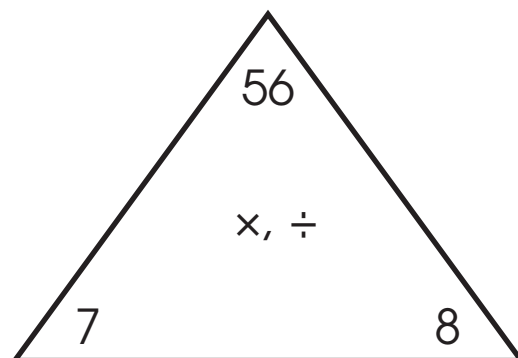
$$28 \div 7 = 4$$

Write the the facts that go with each triangle for the number family.

1.)



2.)



List the 3 numbers in each number family and list the other 2 facts below them.

3.) _____ , _____ , _____
 $28 \div 4 = 7$ $7 \times 4 = 28$

4.) _____ , _____ , _____
 $8 \times 3 = 24$ $24 \div 3 = 8$

Find the missing factor using your knowledge of number families.

5.) _____ \times 8 = 16

6.) 4 \times _____ = 20

Doubles Doom

Materials needed:

1. 2 6-sided number cubes
2. Calculator
3. Pencil

Directions:

1. Player 1 rolls the number cubes, adds up the dots, multiplies the number of dots times 2, and then, records the multiplication fact on their sheet.
2. Player 2 rolls the number cubes, adds up the dots, multiplies the number of dots times 2, and then, records the multiplication fact on their sheet.
3. If the player rolls doubles on the number cubes, their score for that round is "0".
4. Each player has 4 turns. At the end of 4 turns, the players add up the products for the 4 rounds. The player with the highest score wins.

Roll 1

Answer _____

Roll 2

Answer _____

Roll 3

Answer _____

Roll 4

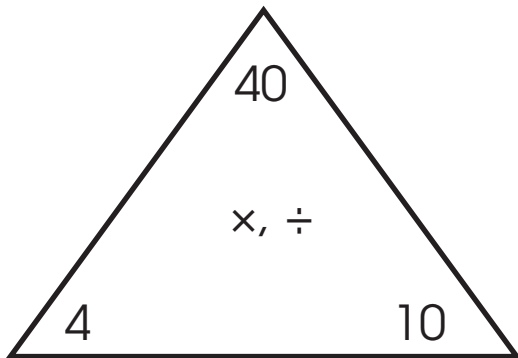
Answer _____

Total Score _____



Write the the facts that go with each triangle for the number family.

1.)



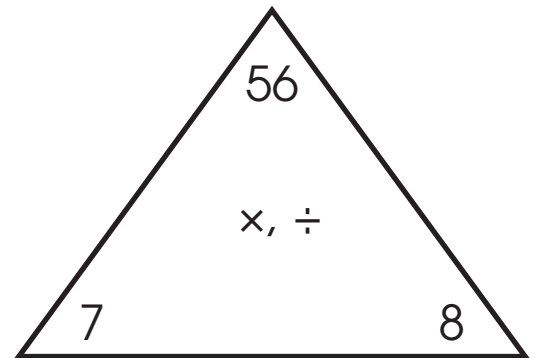
$$4 \times 10 = 40$$

$$10 \times 4 = 40$$

$$40 \div 4 = 10$$

$$40 \div 10 = 4$$

2.)



$$7 \times 8 = 56$$

$$8 \times 7 = 56$$

$$56 \div 7 = 8$$

$$56 \div 8 = 7$$

answers may appear in any order and be considered correct

List the 3 numbers in each number family and list the other 2 facts below them.

3.) 4, 7, 8

$$28 \div 4 = 7 \quad 7 \times 4 = 28$$

$$28 \div 7 = 4 \quad 4 \times 7 = 28$$

4.) 8, 3, 24

$$8 \times 3 = 24 \quad 24 \div 3 = 8$$

$$3 \times 8 = 24 \quad 24 \div 8 = 3$$

Find the missing factor using your knowledge of number families.

5.) 2 $\times 8 = 16$

6.) $4 \times$ 5 $= 20$

Doubles Doom

Materials needed:

1. 2 number cubes
2. Calculator
3. Pencil

Directions:

1. Player 1 rolls the number cubes, adds up the dots, multiplies the number of dots times 2, and then, records the multiplication fact on their sheet.
2. Player 2 rolls the number cubes, adds up the dots, multiplies the number of dots times 2, and then, records the multiplication fact on their sheet.
3. If the player rolls Doubles on the number cubes, their score for that round is "0".
4. Each player has 4 turns. At the end of 4 turns, the players add up the products for the 4 rounds. The player with the highest score wins.

Roll 1 answer _____

Roll 2 answer _____

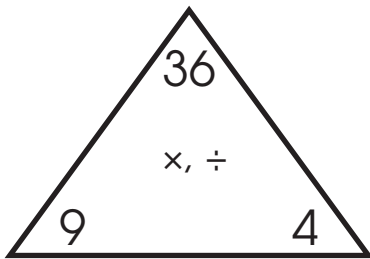
Roll 3 answer _____

Roll 4 answer _____

Total Score _____

answers will vary

Write the facts that go with each triangle for the number family.

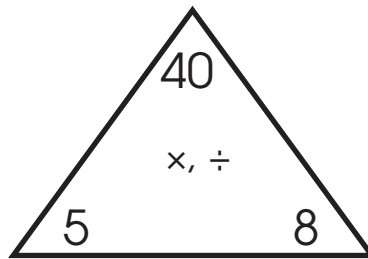


1.) _____

2.) _____

3.) _____

4.) _____

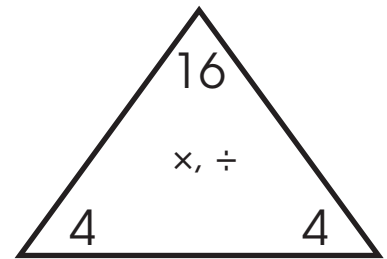


5.) _____

6.) _____

7.) _____

8.) _____



9.) _____

10.) _____

Use the Doubling Strategy to solve.

11.) 4×8

12.) 6×4

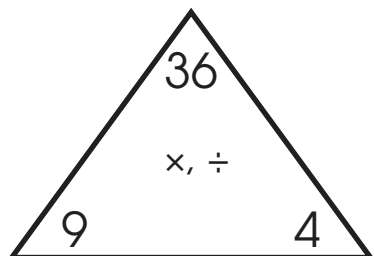
Find the missing factor using your knowledge of number families.

13.) _____ $\times 8 = 32$

14.) $6 \times$ _____ $= 24$



Write the facts that go with each triangle for the number family.

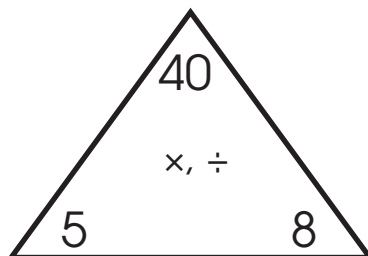


1.) $9 \times 4 = 36$

2.) $4 \times 9 = 36$

3.) $36 \div 4 = 9$

4.) $36 \div 9 = 4$

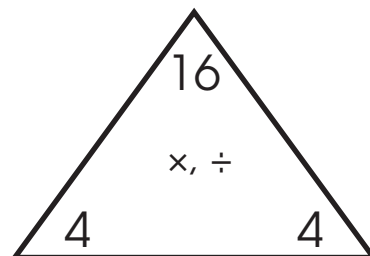


5.) $5 \times 8 = 40$

6.) $8 \times 5 = 40$

7.) $40 \div 8 = 5$

8.) $40 \div 5 = 8$



9.) $4 \times 4 = 16$

10.) $16 \div 4 = 4$

answers may appear in any order and be considered correct

Use the Doubling Strategy to solve.

11.) 4×8

$2 \times 2 \times 8$

$2 \times 8 = 16$

$2 \times 16 = 32$

12.) 6×4

$6 \times 2 \times 2$

$6 \times 2 = 12$

$12 \times 2 = 24$

Find the missing factor using your knowledge of number families.

13.) 4 $\times 8 = 32$

14.) $6 \times$ 4 $= 24$

Solve.

The taco truck sold 3 potato breakfast tacos and 4 bacon breakfast tacos each hour for 4 hours. How many breakfast tacos in all were sold in the 4 hours?

Find the missing multiplication problem.

$$\begin{array}{r} \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} \\ (5 + 1) \times 6 \\ (5 \times 6) + (1 \times 6) \\ 30 + 6 = 36 \end{array}$$



Solve.

The taco truck sold 3 potato breakfast tacos and 4 bacon breakfast tacos each hour for 4 hours. How many breakfast tacos in all were sold in the 4 hours?

$$3 + 4 = 7$$

$$4 \times 7$$

$$\begin{array}{r} \textcircled{4} \times 7 \\ 2 \times 2 \times 7 \\ 2 \times 7 = 14 \\ 2 \times 14 = 28 \\ 28 \text{ tacos} \end{array}$$

$$\begin{array}{r} 4 \times \textcircled{7} \\ 4 \times (2 + 5) \\ (4 \times 2) + (4 \times 5) \\ 8 + 20 \\ 28 \text{ tacos} \end{array}$$



Find the missing multiplication problem.

$$\underline{6} \times \underline{6}$$

$$(5 + 1) \times 6$$

$$(5 \times 6) + (1 \times 6)$$

$$30 + 6 = 36$$

Choose a strategy to solve. Show your work.

1.) 9×3

Strategy:

2.) 4×8

Strategy:

3.) 3×6

Strategy:

4.) Jenna swims 5 freestyle laps and 3 backstroke laps every day. How many laps total does she swim in 4 days?

Follow the steps to determine the original problem.

5.) $\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$
 $(2 + 5) \times 4$
 $(2 \times 4) + (5 \times 4)$
 $8 + 20 = 28$

6.) $\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$
 $4 \times 2 \times 3$
 $2 \times 2 \times 2 \times 3$
 $2 \times 2 \times 6$
 2×12
 24

7.) $\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$
 $7 \times (1 + 5)$
 $(7 \times 1) + (7 \times 5)$
 $7 + 35 = 42$



Choose a strategy to solve. Show your work.

1.) 9×3

Strategy:

$$\begin{array}{l} 10 \times 3 = 30 \\ 30 - 3 = 27 \end{array} \quad \text{or} \quad \begin{array}{l} 9 \times (2 + 1) \\ (9 \times 2) + (9 \times 1) \\ 18 + 9 = 27 \end{array}$$

2.) 4×8

Strategy:

$$\begin{array}{l} 2 \times 2 \times 8 \\ 2 \times 8 = 16 \\ 2 \times 16 = 32 \end{array}$$

3.) 3×6

Strategy:

$$\begin{array}{l} 3 \times (1 + 5) \\ (3 \times 1) + (3 \times 5) \\ 3 + 15 = 18 \end{array} \quad \text{or} \quad \begin{array}{l} (1 + 2) \times 6 \\ (1 \times 6) + (2 \times 6) \\ 6 + 12 = 18 \end{array}$$

4.) Jenna swims 5 freestyle laps and 3 backstroke laps every day. How many laps total does she swim in 4 days?

$$5 + 3 = 8$$

$$8 \times 4$$

$$8 \times 2 \times 2$$

$$8 \times 2 = 16$$

$$16 \times 2 = 32$$

32 laps

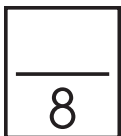


Follow the steps to determine the original problem.

5.) $\underline{7} \times \underline{4}$
 $(2 + 5) \times 4$
 $(2 \times 4) + (5 \times 4)$
 $8 + 20 = 28$

6.) $\underline{8} \times \underline{3}$
 $4 \times 2 \times 3$
 $2 \times 2 \times 2 \times 3$
 $2 \times 2 \times 6$
 2×12
 24

7.) $\underline{7} \times \underline{6}$
 $7 \times (1 + 5)$
 $(7 \times 1) + (7 \times 5)$
 $7 + 35 = 42$



Choose a strategy to solve. Show your work.

1.) 9×6

Strategy:

2.) 4×6

Strategy:

Follow the steps to determine the original problem.

3.) $\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$

$$8 \times 2 \times 2$$

$$16 \times 2 = 32$$

4.) $\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$

$$6 \times 10 = 60$$

$$60 - 6 = 54$$

Use the Doubling Strategy to solve.

5.) 8×8

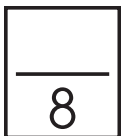
Think multiplication to solve for division.

6.) $32 \div 4 = \underline{\quad}$

7.) $24 \div 4 = \underline{\quad}$

8.) At sports camp the campers have to run 3 laps around the field in the morning and 2 laps around the field in the afternoon. How many laps in total do campers run after 5 days at camp?

- A 5 laps
- B 10 laps
- C 20 laps
- D 25 laps



Choose a strategy to solve. Show your work.

1.) 9×6

Strategy: $10 \times 6 = 60$

$$60 - 6 = 54$$

or

$$9 \times (1 + 5)$$

$$(9 \times 1) + (9 \times 5)$$

$$9 + 45 = 54$$

2.) 4×6

Strategy: $2 \times 2 \times 6$

$$2 \times 6 = 12$$

$$2 \times 12 = 24$$

or

$$4 \times (1 + 5)$$

$$(4 \times 1) + (4 \times 5)$$

$$4 + 20 = 24$$

Follow the steps to determine the original problem.

3.) $\underline{8} \times \underline{4}$

$$8 \times 2 \times 2$$

$$16 \times 2 = 32$$

4.) $\underline{6} \times \underline{9}$

$$6 \times 10 = 60$$

$$60 - 6 = 54$$

Use the Doubling Strategy to solve.

5.) 8×8

$$4 \times 2 \times 8$$

$$2 \times 2 \times 2 \times 8$$

$$2 \times 8 = 16$$

$$2 \times 16 = 32$$

$$2 \times 32 = 64$$



Think multiplication to solve for division.

6.) $32 \div 4 = \underline{8}$

7.) $24 \div 4 = \underline{6}$

8.) At sports camp the campers have to run 3 laps around the field in the morning and 2 laps around the field in the afternoon. How many laps in total do campers run after 5 days at camp?

A 5 laps

B 10 laps

C 20 laps

☒ D 25 laps

n = a letter that stands for an unknown number or factor

$$n + 1 = 4$$

$$n = \underline{\hspace{2cm}}$$

$$n \times 3 = 15$$

$$n = \underline{\hspace{2cm}}$$

$$21 \div 3 = a$$

$$a = \underline{\hspace{2cm}}$$



n = a letter that stands for an unknown number or factor

$$n + 1 = 4$$

$$n = \underline{3}$$

$$n \times 3 = 15$$

$$15 \div 3 = n$$

$$n = \underline{5}$$

$$5 \times 3 = 15$$

$$15 \div 3 = 5$$



$$21 \div 3 = a$$

$$3 \times a = 21$$

$$3 \times 5 = 15$$

$$3 \times 10 = 30$$

$$3 \times 6 = 18$$

$$3 \times 7 = 21$$

$$a = \underline{7}$$

Choose a strategy to solve. Show your work.

- 1.) Perla is buying hotdog buns, soda, and 5 bags of chips for a BBQ. She needs to buy 48 buns. The buns come in packages of 8. How many packages of 8 buns will Perla need to buy to have a total of 48 buns?

Use counters or draw an equal-groups model to solve.

2.) $16 \div 4 = n$

$n = \underline{\hspace{2cm}}$

3.) $12 \div 3 = n$

$n = \underline{\hspace{2cm}}$

Use your knowledge of number families to help solve. Rewrite the division problem as a multiplication problem with a missing factor.

4.) $20 \div 5 = n$

_____ \times _____ = _____

$n =$ _____

5.) $12 \div 3 = n$

_____ \times _____ = _____

$n =$ _____



Choose a strategy to solve. Show your work.

- 1.) Perla is buying hotdog buns, soda, and 5 bags of chips for a BBQ. She needs to buy 48 buns. The buns come in packages of 8. How many packages of 8 buns will Perla need to buy to have a total of 48 buns?

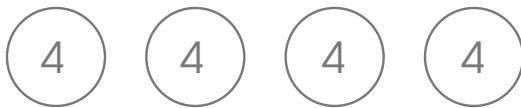
$$p \times 8 = 48$$

$$p = 6$$

6 packages of buns

Use counters or draw an equal-groups model to solve.

2.) $16 \div 4 = n$



$$n = \underline{4}$$

3.) $12 \div 3 = n$



$$n = \underline{4}$$



Use your knowledge of number families to help solve. Rewrite the division problem as a multiplication problem with a missing factor.

4.) $20 \div 5 = n$

5 \times n = 20

$n =$ 4

5.) $12 \div 6 = n$

6 \times n = 24

$n =$ 4



Follow the steps used to determine the original problem.

1.) $\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$
 $4 \times 10 = 40$
 $40 - 4$
 $40 - 4 = 36$

2.) $\underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$
 $6 \times (2 + 5)$
 $(6 \times 2) + (6 \times 5)$
 $12 + 30 = 42$

Draw an equal-groups model to solve.

3.) $14 \div 7 = n$

$n = \underline{\hspace{2cm}}$

4.) $10 \div 5 = n$

$n = \underline{\hspace{2cm}}$

Use your knowledge of number families to help solve. Rewrite the division problem as a multiplication problem with a missing factor.

5.) $20 \div 5 = n$

_____ \times _____ = _____

$n =$ _____

6.) $12 \div 3 = n$

_____ \times _____ = _____

$n =$ _____

Choose the correct division and multiplication with missing factor problem.

7.) Mrs. Flores is making flower arrangements. She has 108 flowers and 9 vases. If each vase has an equal number of flowers, how many flowers will she place in each vase?

A $108 \div 9 = n$
 $n \times 108 = 9$

C $108 \div 9 = n$
 $n \times 9 = 108$

B $9 \div 108 = n$
 $n \times 9 = 108$

D $n \div 108 = 9$
 $9 \times 108 = n$



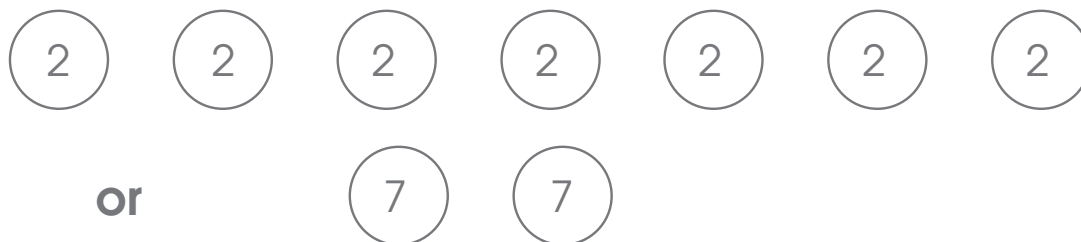
Follow the steps used to determine the original problem.

1.) $\underline{4} \times \underline{9}$
 $4 \times 10 = 40$
 $40 - 4$
 $40 - 4 = 36$

2.) $\underline{6} \times \underline{7}$
 $6 \times (2 + 5)$
 $(6 \times 2) + (6 \times 5)$
 $12 + 30 = 42$

Draw an equal-groups model to solve.

3.) $14 \div 7 = n$



$n = \underline{2}$

4.) $10 \div 5 = n$



$n = \underline{2}$



Use your knowledge of number families to help solve. Rewrite the division problem as a multiplication problem with a missing factor.

5.) $18 \div 6 = n$

6 \times n = 18

or $n \times 6 = 18$

$n =$ 3

6.) $32 \div 8 = n$

8 \times n = 32

or $n \times 8 = 32$

$n =$ 4

Choose the correct division and multiplication with missing factor problem.

7.) Mrs. Flores is making flower arrangements. She has 108 flowers and 9 vases. If each vase has an equal number of flowers, how many flowers will she place in each vase?

A $108 \div 9 = n$
 $n \times 108 = 9$

C $108 \div 9 = n$
 $n \times 9 = 108$

B $9 \div 108 = n$
 $n \times 9 = 108$

D $n \div 108 = 9$
 $9 \times 108 = n$

Freddy was **twice** as tall as his little brother Eddy.

What does twice mean? _____

The sunflowers were **triple** the height of any other flower in the garden.

What does triple mean? _____

After I practiced, I **quadrupled** my score from last week.

What does quadrupled mean? _____

The number of people attending the game **doubled** from last year.

What does doubled mean? _____



Freddy was **twice** as tall as his little brother Eddy.

What does twice mean? times 2

The sunflowers were **triple** the height of any other flower in the garden.

What does triple mean? times 3

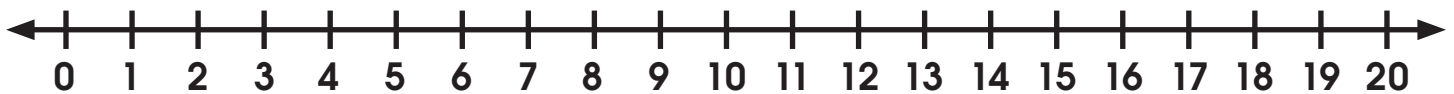
After I practiced, I **quadrupled** my score from last week.

What does quadrupled mean? times 4

The number of people attending the game **doubled** from last year.

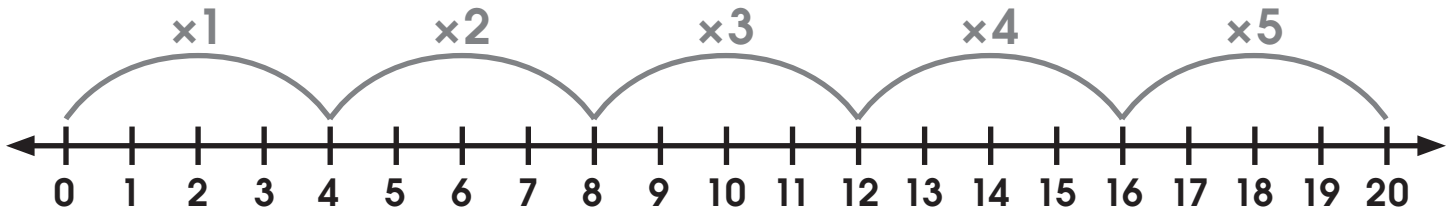
What does doubled mean? times 2 or add it to itself

I ate 4 pancakes this morning for breakfast and drank 4 glasses of orange juice. My brother ate 5 times as many pancakes as I did, but only drank 2 glasses of orange juice. How many pancakes did he eat?





I ate 4 pancakes this morning for breakfast and drank 4 glasses of orange juice. My brother ate 5 times as many pancakes as I did, but only drank 2 glasses of orange juice. How many pancakes did he eat?



5 groups of 4 equals p

$$p = 20$$

$$5 \times 4 = 20$$

20 pancakes

$p = 20$				
4	4	4	4	4

$$5 \times 4 = 20$$

20 pancakes

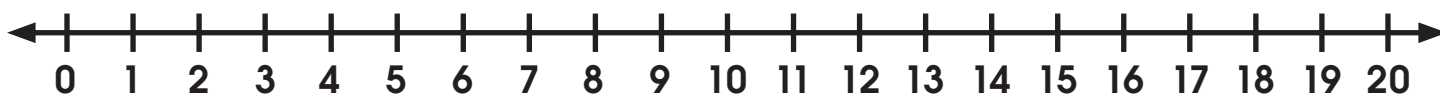
$$20 \div 4 = 5 \quad \text{or} \quad 20 \div 5 = 4$$

Solve each problem using the number line and strip diagram.

- 1.) The tree in the front yard is 8 ft. tall. The house is twice as tall as the tree.
 The 4 kids who live in the house love climbing the tree! How tall is the house?

What is the question asking you to find? _____

Number Line



$$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$\underline{\hspace{2cm}}$ ft.

Strip Diagram

$$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$\underline{\hspace{2cm}}$ ft.

Solve each problem using the number line and strip diagram.

- 2.) The average rattlesnake is about 3 ft. in length. The longest snake in the world can grow to be 5 times longer than the rattlesnake. The largest crocodile can grow up to 20 ft. long. What is the length of the longest snake in the world?

What is the question asking you to find? _____

Number Line



$$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

 ft.

Strip Diagram

$$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

 ft.

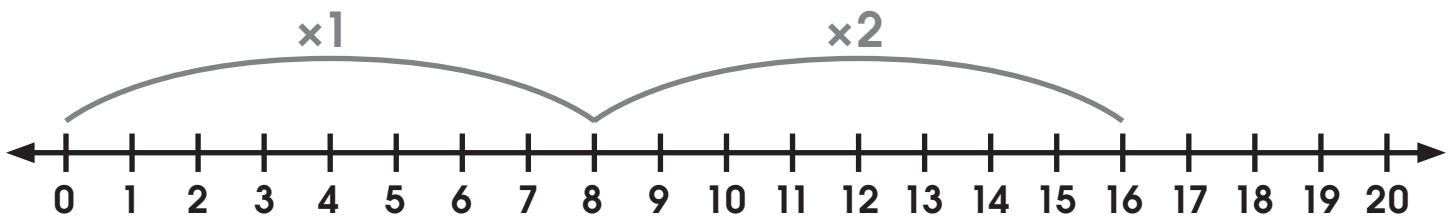


Solve each problem using the number line and strip diagram.

- 1.) The tree in the front yard is 8 ft. tall. The house is twice as tall as the tree.
The 4 kids who live in the house love climbing the tree! How tall is the house?

What is the question asking you to find? the height of the house

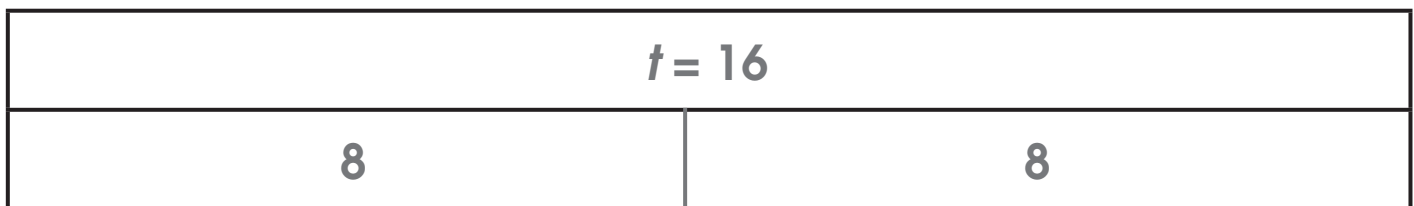
Number Line



$$\underline{2} \times \underline{8} = \underline{16}$$

$$\underline{16} \text{ ft.}$$

Strip Diagram



$$\underline{2} \times \underline{8} = \underline{16}$$

$$\underline{16} \text{ ft.}$$

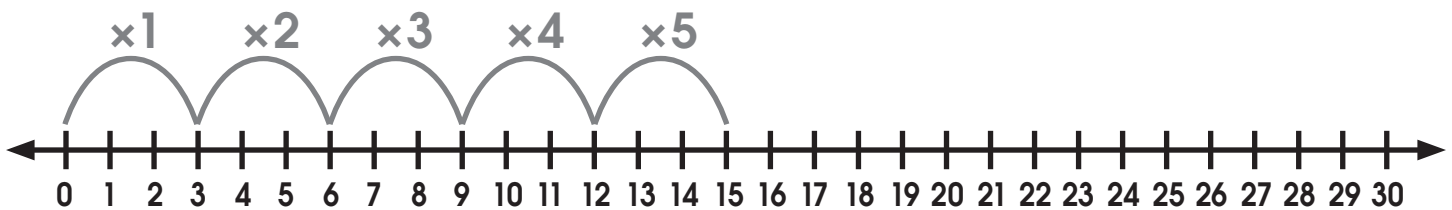


Solve each problem using the number line and strip diagram.

- 2.) The average rattlesnake is about 3 ft. in length. The longest snake in the world can grow to be 5 times longer than the rattlesnake. The largest crocodile can grow up to 20 ft. long. What is the length of the longest snake in the world?

What is the question asking you to find? the length of the snake

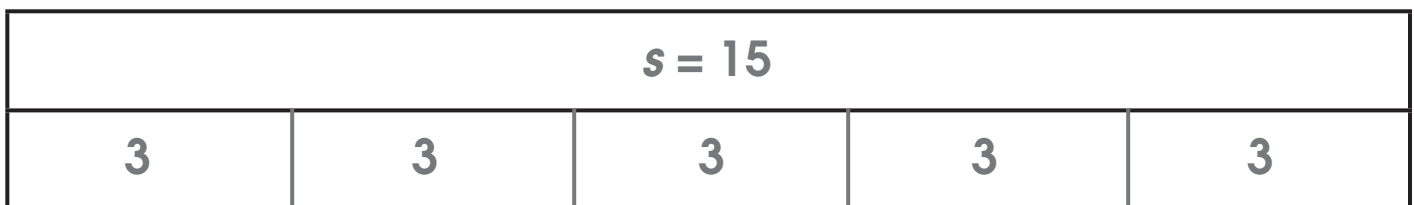
Number Line



$$\underline{5} \times \underline{3} = \underline{15}$$

$$\underline{15} \text{ ft.}$$

Strip Diagram



$$\underline{5} \times \underline{3} = \underline{15}$$

$$\underline{15} \text{ ft.}$$

Use your knowledge of number families to help solve. Rewrite the division problem as a multiplication problem with a missing factor.

1.) $49 \div 7 = n$

_____ \times _____ = _____

$n =$ _____

2.) $24 \div 8 = n$

_____ \times _____ = _____

$n =$ _____

Solve each problem using the number line and strip diagram.

A farmer has 4 hens and 2 roosters. He has 7 times as many chicks as hens. How many chicks does the farmer have?

3.) What is the question asking you to find? _____

4.) Number Line



5.) Multiplication _____

_____ chicks

6.) Strip Diagram

7.) Multiplication _____

_____ chicks

At Fulmore Elementary School, there are 124 students in band and choir.

There are triple the amount of girls in choir as boys. If there are 10 boys in choir, how many girls are there?

8.) What is the question asking you to find? _____

9.) Number Line



10.) Multiplication _____

_____ girls

11.) Strip Diagram

12.) Multiplication _____

_____ girls

13.) How many boys and girls are in choir altogether?



Use your knowledge of number families to help solve. Rewrite the division problem as a multiplication problem with a missing factor.

1.) $49 \div 7 = n$

7 \times n = 49

$n =$ 7

2.) $24 \div 8 = n$

8 \times n = 24

$n =$ 3

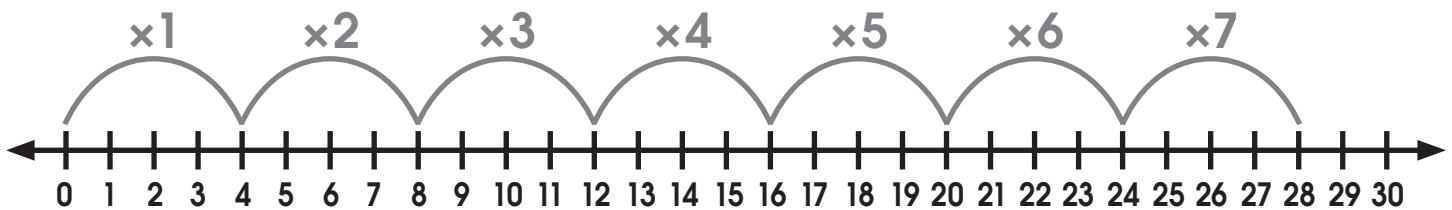


Solve each problem using the number line and strip diagram.

A farmer has 4 hens and 2 roosters. He has 7 times as many chicks as hens. How many chicks does the farmer have?

3.) What is the question asking you to find? the number of chicks

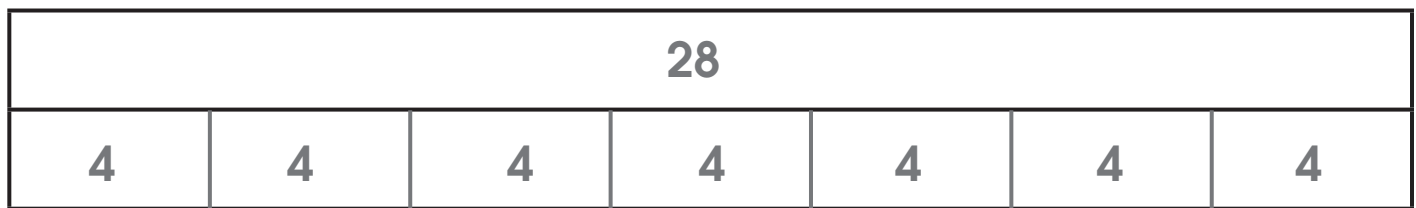
4.) Number Line



5.) Multiplication $7 \times 4 = 28$

28 chicks

6.) Strip Diagram



7.) Multiplication $7 \times 4 = 28$

28 chicks

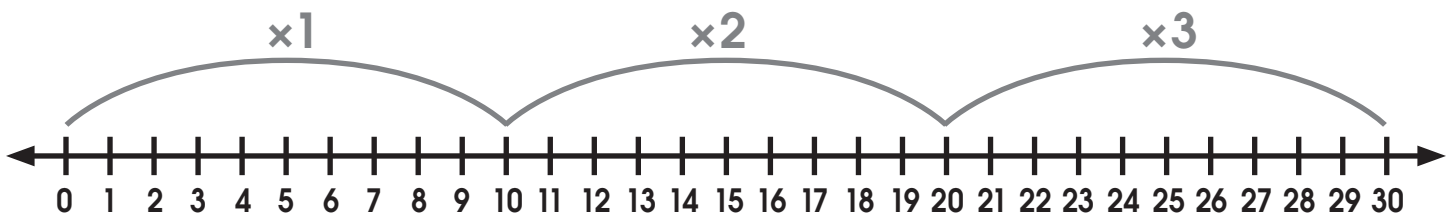


At Fulmore Elementary School, there are 124 students in band and choir.

There are triple the amount of girls in choir as boys. If there are 10 boys in choir, how many girls are there?

8.) What is the question asking you to find? the number of girls

9.) Number Line



10.) Multiplication $3 \times 10 = 30$

30 girls

11.) Strip Diagram

30		
10	10	10

12.) Multiplication $3 \times 10 = 30$

30 girls

13.) How many boys and girls are in choir altogether?

$10 + 30 = 40$

24		
8	8	8

Multiplication

Division

Multiplication

$$9 \times 6 = 54$$

$$6 \times 9 = 54$$

Division

$$54 \div 6 = 9$$

$$54 \div 9 = 6$$



24		
8	8	8

Multiplication

$$3 \times 8 = 24$$

$$8 \times 3 = 24$$

Division

$$24 \div 3 = 8$$

$$24 \div 8 = 3$$

54								
6	6	6	6	6	6	6	6	6

or

54					
9	9	9	9	9	9

Multiplication

$$9 \times 6 = 54$$

$$6 \times 9 = 54$$

Division

$$54 \div 6 = 9$$

$$54 \div 9 = 6$$

The Millers are remodeling their house. They bought 4 large buckets of paint with 6 gallons of paint in each bucket, 12 paintbrushes, and 4 rags. How many gallons of paint did the Millers buy altogether?

For the light fixture in the dining room, Mrs. Miller needs 16 light bulbs. Light bulbs are sold in packages of 4. Each package costs \$2.25. How many packages will she need to buy?



The Millers are remodeling their house. They bought 4 large buckets of paint with 6 gallons of paint in each bucket, 12 paintbrushes, and 4 rags. How many gallons of paint did the Millers buy altogether?

$n = 24$			
6	6	6	6

$6 \times 4 = 24$
24 gallons of paint

For the light fixture in the dining room, Mrs. Miller needs 16 light bulbs. Light bulbs are sold in packages of 4. Each package costs \$2.25. How many packages will she need to buy?

16			
4	4	4	4

$16 \div 4 = 4$
 $4 \times n = 16$
4 packages of light bulbs

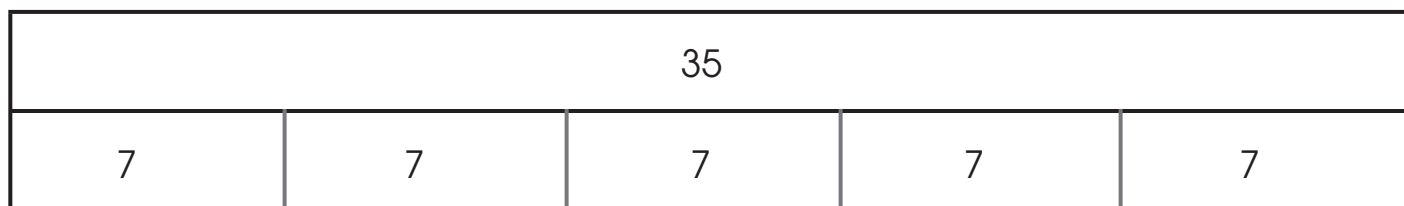
Read the problem. Use a strip diagram to solve.

- 1.) At the hardware store, Mr. Miller bought 3 packages of screws and 5 packages of nails. Each package of screws had 12 screws in it. Mr. Miller needs 30 screws to build the new shelves. Did he buy enough screws to build the shelves?

- 2.) Mr. Miller hired a handyman on Friday to help with the remodeling. The handyman charged Mr. Miller \$8 an hour. Mr. Miller paid the handyman \$32 when he was done. How many hours did the handyman work?

Write a story problem for the strip diagram below.

3.)





Read the problem. Use a strip diagram to solve.

- 1.) At the hardware store, Mr. Miller bought 3 packages of screws and 5 packages of nails. Each package of screws had 12 screws in it. Mr. Miller needs 30 screws to build the new shelves. Did he buy enough screws to build the shelves?

$n = 36$		
12	12	12

$$12 \times 3 = 36$$

Yes, he bought enough screws.

- 2.) Mr. Miller hired a handyman on Friday to help with the remodeling. The handyman charged Mr. Miller \$8 an hour. Mr. Miller paid the handyman \$32 when he was done. How many hours did the handyman work?

32			
8	8	8	8

$$32 \div 8 = n$$

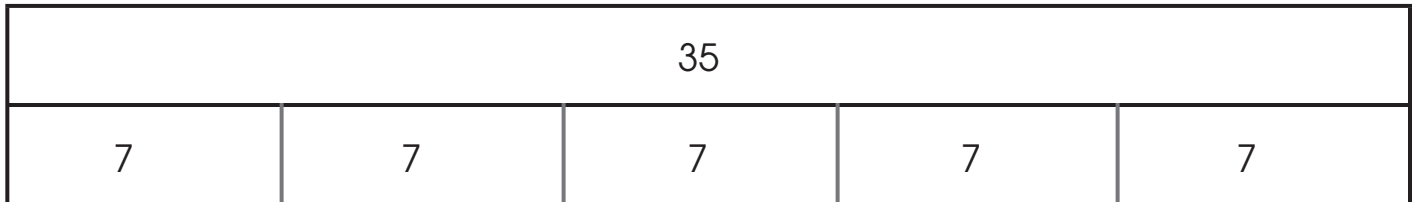
$$n \times 8 = 32$$

4 hours



Write a story problem for the strip diagram below.

3.)



Answers will vary.

Solve the problem below using the number line.

- 1.) Margo ran 6 miles on Thursday. She did not run on Friday. Then she ran 3 times further on Saturday than Thursday. How far did she run on Saturday?



_____ miles

Solve the problem below using a strip diagram.

- 2.) In the hot dog eating contest, Jake ate 8 hot dogs in 3 minutes. Omar ate 3 times more hot dogs than Jake. How many hot dogs did Omar eat in 3 minutes?

_____ hot dogs

Read the problem. Use a strip diagram to solve.

- 3.)** The Millers put new carpet in their son's room. His room is 7-ft. wide and 9-ft. long. The carpet cost \$3.99 per square foot. How much carpet should the Millers order for their son's room?

- 4.)** Mrs. Miller bought 45 small flowers to plant in the front flowerbeds of the house. Each flower has 3 to 4 blooms. Mrs. Miller wants to plant the flowers equally with 9 flowers in each flowerbed. How many flowerbeds will she plant flowers in?

Choose the correct equation for the problem.

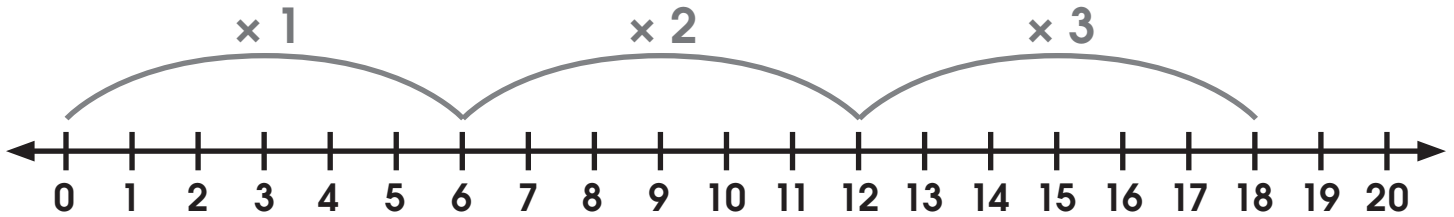
5.) The remodeling of the Miller's house took 6 weeks to complete. The Millers worked 5 days a week on remodeling. They spent 8 hours a day working. How many days altogether did the Millers work on their house?

- A** $6 \times 8 = 48$ days
- B** $6 \times 5 = 30$ days
- C** $5 \times 8 = 40$ hours
- D** $6 \times 5 \times 8 = 240$ days



Solve the problem below using the number line.

- 1.) Margo ran 6 miles on Thursday. She did not run on Friday. Then she ran 3 times further on Saturday than Thursday. How far did she run on Saturday?



18 miles

Solve the problem below using a strip diagram.

- 2.) In the hot dog eating contest, Jake ate 8 hot dogs in 3 minutes. Omar ate 3 times more hot dogs than Jake. How many hot dogs did Omar eat in 3 minutes?

$h = 24$		
8	8	8

24 hot dogs



Read the problem. Use a strip diagram to solve.

- 3.) The Millers put new carpet in their son's room. His room is 7-ft. wide and 9-ft. long. The carpet cost \$3.99 per square foot. How much carpet should the Millers order for their son's room?

$n = 63$						
9	9	9	9	9	9	9

$$7 \times 9 = 63$$

63 square feet of carpet

- 4.) Mrs. Miller bought 45 small flowers to plant in the front flowerbeds of the house. Each flower has 3 to 4 blooms. Mrs. Miller wants to plant the flowers equally with 9 flowers in each flowerbed. How many flowerbeds will she plant flowers in?

45				
9	9	9	9	9

$$45 \div 9 = n$$

$$n \times 9 = 45$$

5 flowerbeds



Choose the correct equation for the problem.

5.) The remodeling of the Miller's house took 6 weeks to complete. The Millers worked 5 days a week on remodeling. They spent 8 hours a day working. How many days altogether did the Millers work on their house?

A $6 \times 8 = 48$ days

☒ B $6 \times 5 = 30$ days

C $5 \times 8 = 40$ hours

D $6 \times 5 \times 8 = 240$ days

42						
6	6	6	6	6	6	6

Multiplication

Division

Multiplication

$$4 \times 9 = 36$$

$$9 \times 4 = 36$$

Division

$$36 \div 4 = 9$$

$$36 \div 9 = 4$$



42						
6	6	6	6	6	6	6

Multiplication

$$\begin{array}{r} 6 \times 7 = 42 \\ 7 \times 6 = 42 \end{array}$$

Division

$$\begin{array}{r} 42 \div 6 = 7 \\ 42 \div 7 = 6 \end{array}$$

36			
9	9	9	9

or

36								
4	4	4	4	4	4	4	4	4

Multiplication

$$4 \times 9 = 36$$

$$9 \times 4 = 36$$

Division

$$36 \div 4 = 9$$

$$36 \div 9 = 4$$

There are 56 sticks of gum. Each package has 8 sticks of gum. The gum is a mix of peppermint, spearmint, and sweet mint. How many packages of gum are there?

Kiya buys 7 packages of highlighters, 2 packages of pens, and 3 spiral notebooks for school. Each package contains 4 highlighters. How many highlighters did Kiya buy?



There are 56 sticks of gum. Each package has 8 sticks of gum. The gum is a mix of peppermint, spearmint, and sweet mint. How many packages of gum are there?

56						
8	8	8	8	8	8	8

$$56 \div 8 = n$$

$$8 \times n = 56$$

7 packages of gum

Kiya buys 7 packages of highlighters, 2 packages of pens, and 3 spiral notebooks for school. Each package contains 4 highlighters. How many highlighters did Kiya buy?

$n = 28$						
4	4	4	4	4	4	4

$$7 \times 4 = n \quad \text{or}$$

$$4 \times 7 = n$$

28 highlighters

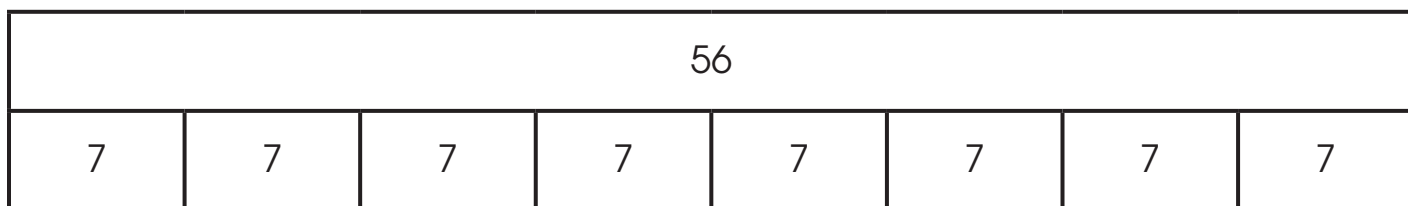
Read the problem. Use a strip diagram to solve.

- 1.) Ian collected \$27 for selling candy bars for a school fundraiser. He sold milk chocolate, dark chocolate, and chocolate with almonds. Each candy bar was \$3. How many candy bars did Ian sell?

- 2.) Tonya's art teacher asked her to pass out paintbrushes for art class. She is told to give 8 brushes to each table. There are 5 tables in the class. The class is 45 minutes long. How many paintbrushes will she need?

Write a story problem for the strip diagram below.

3.)





Read the problem. Use a strip diagram to solve.

- 1.) Ian collected \$27 for selling candy bars for a school fundraiser. He sold milk chocolate, dark chocolate, and chocolate with almonds. Each candy bar was \$3. How many candy bars did Ian sell?

27								
3	3	3	3	3	3	3	3	3

9 candy bars

- 2.) Tonya's art teacher asked her to pass out paintbrushes for art class. She is told to give 8 brushes to each table. There are 5 tables in the class. The class is 45 minutes long. How many paintbrushes will she need?

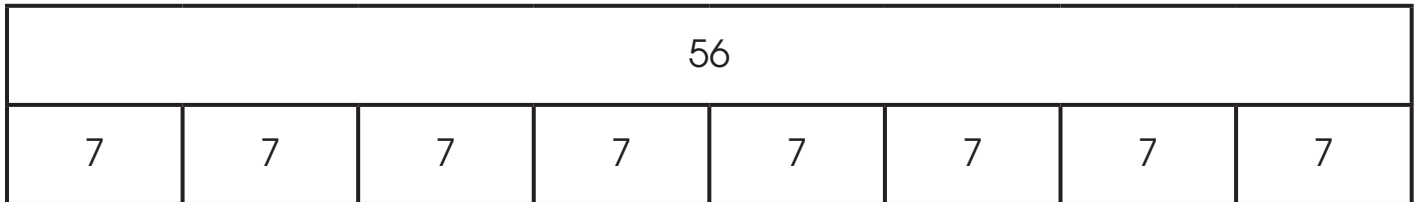
$p = 40$				
8	8	8	8	8

40 paintbrushes



Write a story problem for the strip diagram below.

3.)



Answers will vary.

Use your knowledge of number families to help solve. Rewrite the division problem as a multiplication problem with a missing factor.

1.) $35 \div 5 = n$

_____ \times _____ = _____

$n =$ _____

2.) $72 \div 8 = n$

_____ \times _____ = _____

$n =$ _____

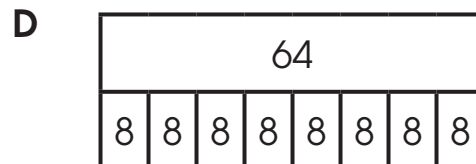
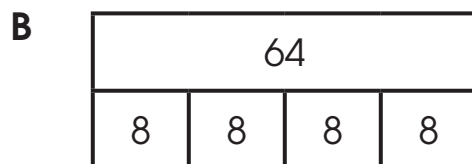
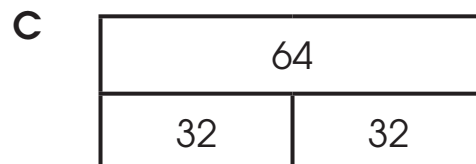
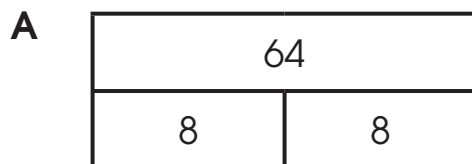
Read the problem. Use a strip diagram to solve.

- 3.) At the restaurant Julia and her 3 friends ordered nachos and sodas to share. The cost of the meal including tax and tip was \$20. If each friend paid the same amount, how much did each friend pay?

- 4.) Natalya read 9 pages every night for 1 week. She read $\frac{1}{3}$ of her book in the week. How many pages did she read in the week?

Solve.

- 5.) Kyle had a stamp collection of 64 stamps. He placed the stamps in an album for safekeeping. Kyle placed 8 stamps per page. How many pages of stamps does he need for all 64 stamps? Choose the correct strip diagram to represent the problem below.





Use your knowledge of number families to help solve. Rewrite the division problem as a multiplication problem with a missing factor.

1.) $35 \div 5 = n$

$$\underline{5} \times \underline{n} = \underline{35}$$

$$n = \underline{7}$$

2.) $72 \div 8 = n$

$$\underline{8} \times \underline{n} = \underline{72}$$

$$n = \underline{9}$$

Read the problem. Use a strip diagram to solve.

- 3.) At the restaurant, Julia and her 3 friends ordered nachos and sodas to share. The cost of the meal including tax and tip was \$20. If each friend paid the same amount, how much did each friend pay?

20			
5	5	5	5

\$5 per friend



- 4.) Natalya read 9 pages every night for 1 week. She read $\frac{1}{3}$ of her book in the week. How many pages did she read in the week?

$p = 63$						
9	9	9	9	9	9	9

63 pages in 1 week

Solve.

- 5.) Kyle had a stamp collection of 64 stamps. He placed the stamps in an album for safekeeping. Kyle placed 8 stamps per page. How many pages of stamps does he need for all 64 stamps? Choose the correct strip diagram to represent the problem below.

