Hier 2 Mathematics Intervention
Module: *Multiplication & Division Relationships (MDR)*
Form C Assessment

Name ________________________________________

Date _________________________________________

Teacher _______________________________________
1.) Makayla was skip counting by 6s. Circle the answer that shows the first 6 numbers Makayla skip counted.
   A  6, 16, 26, 36, 46, 56
   B  6, 12, 18, 24, 30, 36
   C  6, 7, 8, 9, 10, 11
   D  3, 5, 7, 9, 11, 13

2.) Circle the answer that shows 6 groups of 3.
   A  6 + 6 + 6 + 6 + 6 + 6 + 6
   B  12 + 12
   C  6 + 6 + 3 + 3
   D  3 + 3 + 3 + 3 + 3 + 3

3.) Circle the answer of the correct equal group sentence for the equal groups model.
   A  7 groups of 2 equals 14.
   B  14 groups of 7 equals 2.
   C  2 groups of 7 equals 14.
   D  7 groups of 7 equals 14.

4.) Circle the answer that shows the correct equal groups model for 4 groups of 6 equals 24.
   A
   B
   C
   D
5.) Circle the answer of the multiplication equation for the repeated addition equation $5 + 5 + 5 + 5 = 20$.

A  $4 \times 5 = 20$
B  $5 \times 5 \times 5 \times 5 = 20$
C  $5 \times 20 = 4$
D  $4 \times 4 \times 4 \times 4 \times 4 = 20$

6.) Kyle separated 12 apples into baskets and told the teacher they were in equal groups. Circle the answer that shows the apples in equal groups.

A

B

C

D

7.) Solve the multiplication problem using the number line. Circle the answer of the problem.

$\times 1 \quad \times 2 \quad \times 3 \quad \times 4 \quad \times 5 \quad \times 6$

A  $3 \times 6 = 6$
B  $6 \times 3 = 18$
C  $6 \times 6 = 18$
D  $3 \times 3 = 18$
8.) Karen was asked to model $2 \times 8$ on the number line. Circle the answer that shows the correct model.

A

B

C

D

9.) Circle the multiplication equation for the bar model.

\[
\begin{array}{|c|c|c|c|c|c|c|}
\hline
? & & & & & & \\
\hline
5 & & & & & & \\
\hline
\end{array}
\]

A  $5 \times 5 = 25$
B  $8 + 5 = 13$
C  $8 \times 5 = 45$
D  $8 \times 5 = 40$
10.) Jonah ran 6 miles every day for 1 week. After 1 week, how many miles did Jonah run in all? (Remember: 1 week = 7 days) Circle the letter of the bar model that represents this problem.

- **A** $6 \times 7$
- **B** $6 \times 6$
- **C** $7 \times 7$
- **D** $7 \times 1$

11.) The box of crayons has 3 rows with 5 crayons in each row. Circle the letter of the array and multiplication equation that represents the crayon box.

- **A**
  
  $5 \times 5 = 25$

- **B**
  
  $3 \times 5 = 15$

- **C**
  
  $3 \times 1 = 3$

- **D**
  
  $3 \times 3 = 9$
12.) Circle the repeated addition equation for the array.

\[
\begin{array}{ccccc}
\bullet & \bullet & \bullet & \bullet & \bullet \\
\bullet & \bullet & \bullet & \bullet & \bullet \\
\bullet & \bullet & \bullet & \bullet & \bullet
\end{array}
\]

A  $3 + 8 = 11$
B  $8 + 8 + 8 = 24$
C  $3 + 8 + 3 + 8 = 22$
D  $3 + 3 + 3 = 24$

13.) Circle the multiplication equation that represents the shaded area.

A  $36 \times 1 = 36$
B  $3 \times 12 = 36$
C  $12 \times 12 = 36$
D  $3 \times 3 = 36$

14.) Aaron is drawing a model of the kitchen floor. He shaded 9 columns of 3 tiles. What is the area of the kitchen floor?

A  12 square units
B  18 square units
C  27 square units
D  30 square units
15.) What is the shaded area of the area model?

A 14 square units  
B 2 square units  
C 7 square units  
D 28 square units

16.) Which multiplication equation can be used to find the area of the dog house?

A 3 × 3  
B 7 × 5  
C 7 × 7  
D 7 × 4
Solve using the multiplication table. Circle the correct answer.

17.) $\frac{12}{4}$

A 12  B 16  C 36  D 48

18.) $6 \times 9 =$

A 15  B 48  C 54  D 63
19.) 5 students equally shared 12 pencils. How many pencils did each student get? Circle the correct answer.

A  12 shared equally with 5 friends equals 2 per friend with 2 leftover.
B  5 shared equally with 12 friends equals 2 per friend with 2 leftover.
C  12 shared equally with 5 friends equals 1 per friend with 7 leftover.
D  5 shared equally with 12 friends equals 7 per friend with 0 leftover.

20.) 4 friends found 15 silver coins. Which way shows the friends sharing equally? Circle the correct answer.

A  15 shared equally with 4 friends equals 3 per friend with 6 leftover.
B  15 shared equally with 4 friends equals 3 per friend with 3 leftover.
C  4 shared equally with 15 friends equals 3 per friend with 3 leftover.
D  15 shared equally with 4 friends equals 5 per friend with 0 leftover.

Draw dots in the bar model to represent the counters. Circle the answer that completes the sentence.

21.) 8 divided equally into 4 groups equals ______.

A  12
B  4
C  2
D  32

Choose the most reasonable answer.

22.) Carlos has 17 stickers. He wants to give his 2 younger brothers the same amount. About how many stickers should his brothers each receive?

A  9 stickers each
B  10 stickers each
C  8 stickers each
D  34 stickers each
23.) Repeated subtraction is related to _________________.
   A multiplication
   B addition
   C division
   D subtraction

24.) When you divide the whole into less groups, what happens to the amount in each group? Circle the best answer.
   A The amount in each group is less.
   B The amount in each group is more.
   C The amount in each group doesn’t change.
   D The amount in each group only changes the whole.

25.) Circle the sentence that matches the bar model.

   A 24 divided into groups of 3 equals 8 equal groups.
   B 3 divided into groups of 3 equals 24 equal groups.
   C 24 divided into groups of 6 equals 3 equal groups.
   D 6 divided into groups of 3 equals 24 equal groups.

Choose the correct bar model.

26.) 63 divided into groups of 9 equals 7 equal groups.

   A

   B

   C

   D
27.) Circle the correct number family triangle from the given number equation.

\[
\begin{align*}
11 \times 8 &= 88 \\
88 ÷ 8 &= 11
\end{align*}
\]

A

B

C

D

28.) Circle a multiplication equation that belongs to this fact family.

A \( 8 \times 9 = 72 \)
B \( 72 \times 9 = 8 \)
C \( 8 \times 72 = 9 \)
D \( 72 \times 8 = 9 \)

29.) Which fact does not belong to the number family?

A \( 6 \times 7 = 42 \)
B \( 42 ÷ 7 = 6 \)
C \( 7 \times 6 = 42 \)
D \( 6 ÷ 42 = 7 \)

30.) Circle the example of the Zero Property of Multiplication.

A \( 3 \times 1 = 3 \)
B \( 8 \times 8 = 64 \)
C \( 0 \times 4 = 0 \)
D \( 10 \times 7 = 70 \)
31.) Anna has 12 ten-dollar bills. Circle the correct equation that shows how much money Anna has.

- A  $1 \times 12 = $12$
- B  $12 + 10 = $22$
- C  $12 \times 10 = $112$
- D  $12 \times 10 = $120$

32.) Which of the following makes the equation true?

$$2 \times \underline{} = 20$$

- A  $12$
- B  $10$
- C  $22$
- D  $11$

33.) Mrs. King puts her class into teams. Each team has 9 students. There are 9 different teams. Circle the letter that correctly shows how many students are in Mrs. King’s class.

- A  $\frac{9 \times 9}{10 \times 10} = 100$
- $\frac{- 9}{91 \text{ students}}$

- B  $\frac{9 + 9}{9 + 10} = 19$
- $\frac{- 9}{10 \text{ students}}$

- C  $\frac{9 \times 9}{9 \times 10} = 90$
- $\frac{- 10}{80 \text{ students}}$

- D  $\frac{9 \times 9}{9 \times 10} = 90$
- $\frac{- 9}{81 \text{ students}}$

34.) Kaylee wrote that $9 \times 6 = 60$. What step did Kaylee forget to do in solving $9 \times 6$ ?

- A  None, that is the correct answer.
- B  She forgot to subtract the factor.
- C  She didn’t think of 9 as 10.
- D  She didn’t multiply 9 to 10.
35.) Circle the correct way to solve $4 \times 6$ using the Break Apart 6 Strategy.

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

$$4 + 20 = 24$$

B $$(1 \times 6) + (4 \times 5)$$

$$6 + 20 = 26$$

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

$$5 + 16 = 21$$

D $$(6 \times 4) + (6 \times 4)$$

$$24 + 24 = 48$$

36.) Marcus sold 6 pies at the fundraiser. Each pie costs $11. How much money did Marcus make?

A $17
B $60
C $66
D $72

37.) Matthew has 4 friends and wants to give each friend 7 notebooks. Circle the letter that correctly shows how many notebooks Matthew needs in all?

A $4 \times 7$

$$14 + 14 = 28 = 4 \times 7$$

C $4 \times 7$

$$4 + 14 = 18 = 4 \times 7$$

B $4 \times 7$

$$8 + 8 = 16 = 4 \times 7$$

D $4 \times 7$

$$28 + 28 = 56 = 4 \times 7$$

38.) Circle the letter that shows how Courtney correctly solved $4 \times 8$.

A $4 \times 8 = 12$

B $4 + 4 = 8$ so $4 \times 8 = 8$

C $8 + 8 = 16$ so $4 \times 8 = 16$

D $16 + 16 = 32$ so $4 \times 8 = 32$
39.) Sofia earns $3 a day for pet sitting. She worked a total of 7 days. Circle the letter that correctly shows how much money Sophia earned?

A  \(3 \times 7\)
   \((2 \times 3) + (5 \times 3)\)
   \[\underline{6} + \underline{15}\]
   \$21

B  \(3 \times 7\)
   \((3 \times 7) + (3 \times 7)\)
   \[\underline{21} + \underline{21}\]
   \$42

C  \(3 \times 7\)
   \((2 \times 5) + (7 \times 3)\)
   \[\underline{10} + \underline{21}\]
   \$31

D  \(3 \times 7\)
   \((1 \times 3) + (7 \times 3)\)
   \[\underline{3} + \underline{21}\]
   \$24

40.) Joshua sold 12 of his baseball cards for $4 each. How much money did Joshua get for his baseball cards?

A  $16
B  $48
C  $17
D  $40