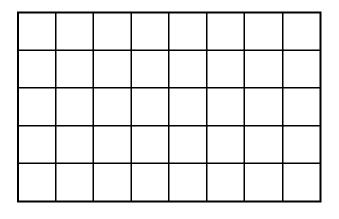
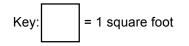
## **Original Task**

Determine the area of rectangles with whole number side lengths in problems using multiplication related to the number of rows times the number of unit squares in each row. 3(6)(C)

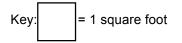
Jake designed the rectangular garden shown below. What is the area, in square feet, of Jake's garden?





### **Amplified Tasks**

Task A (Amplified Task): Jake designed the garden shown below.



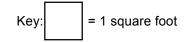
- What is the area, in square feet, of Jake's garden? Justify your answer.
- At the garden center, fertilizer costs \$6 a bag. If one bag of fertilizer will cover 11 square feet, how much will it cost to fertilize Jake's garden?
- What is the perimeter, in feet, of Jake's garden? Justify your answer.
- At the garden center, fencing costs \$9 a foot. How much will it cost to put a fence around Jake's garden?

Task B (Scaffolded Task):

Materials:

- 1 centimeter grid paper
- Scissors
- Colored pencils (2 different colors)
- Tape or glue
- Highlighter
- Hint Card 1 and Hint Card 2 (3 or 4 of each)

Jake designed the garden shown below.



- Trace Jake's garden onto grid paper, and then cut the garden into two rectangles. Use a different colored pencil to shade the area of each rectangle. Label the length and width of each rectangle.
- Determine the area of each rectangle, and label the rectangle with its area in square feet.
- Attach the two rectangles to the garden design shown above.
- What is the area, in square feet, of Jake's garden? Justify your answer.
- At the garden center, fertilizer costs \$6 a bag. If one bag of fertilizer will cover 11 square feet, how much will it cost to fertilize Jake's garden?

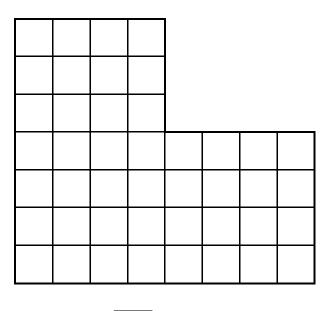
Hint Cards

?	÷	Number of square feet covered by one bag of fertilizer	=	Number of bags of fertilizer needed to cover Jake's garden
	ed as needed	d by individual students.)		
Number of bags of fertilizer needed to cover Jake's garden	×	?	=	Total cost to fertilize Jake's Garden
Hint Card 1: ( <i>To be us</i>	ed as needed ÷	d by individual students.) Number of square feet covered by one bag of fertilizer	=	Number of bags of fertilizer needed to cover Jake's garden
?	÷	Number of square feet covered by one		of fertilizer needed to cover

Task C (Scaffolded Task): Materials: Hint Card 1 and Hint Card 2 (3 or 4 of each)

Jake designed the garden shown below.

Jake's Garden Design



• What is the area, in square feet, of Jake's garden? Justify your answer.

I found the total area of the garden by first \_\_\_\_\_\_, and then I

• At the garden center, fertilizer costs \$6 a bag. If one bag of fertilizer will cover 11 square feet, how much will it cost to fertilize Jake's garden?

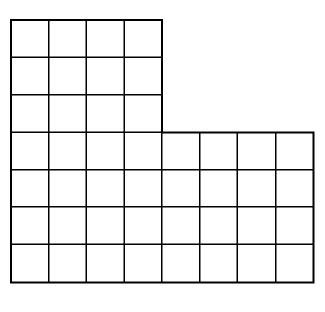
Hint Cards

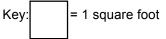
?	÷	Number of square feet covered by one bag of fertilizer	=	Number of bags of fertilizer needed to cover Jake's garden
	ed as needed	d by individual students.)		
Number of bags of fertilizer needed to cover Jake's garden	×	?	=	Total cost to fertilize Jake's Garden
Hint Card 1: ( <i>To be us</i>	ed as needed ÷	d by individual students.) Number of square feet covered by one bag of fertilizer		Number of bags of fertilizer needed to cover Jake's garden
?	÷	Number of square feet covered by one		of fertilizer needed to cover

Task D (Enriched Task): Materials:

- 1 centimeter grid paper
- Colored pencils (2 different colors)

Jake designed the garden shown below.



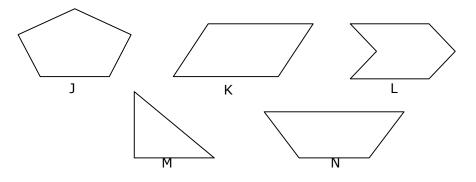


- What is the area, in square feet, of Jake's garden?
- Jake decided to increase the size of his garden by 8 square feet. Use grid paper and colored pencils to sketch Jake's new garden.
- What is the perimeter, in feet, of Jake's new garden? Justify your answer.

## **Original Task:**

Identify points, lines, line segments, rays, angles, and perpendicular and parallel lines. 4(6)(A)

Of the figures below, which appear to have at least 2 obtuse angles?

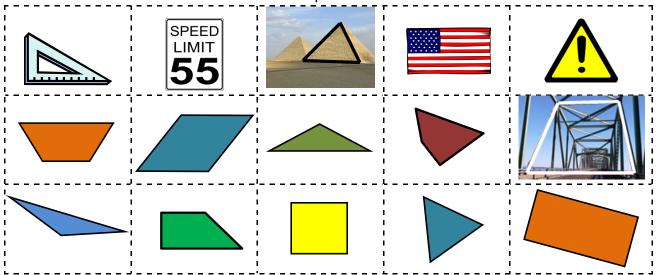


# Amplified Tasks

Materials:

- Student journals
- Shape Cards (3 sets per student)
- Tape
- Scissors





Task A (Amplified Task):

Prompt students to complete the following:

- Cut apart the Shape Cards.
- Label the name of each shape on the back of the Shape Cards. Give the most descriptive name possible.
- In your journal, draw a diagram using two circles.
- Choose one word from each of the tables below.

Triangle	Quadrilateral	Trapezoid
Parallelogram	Rectangle	Square

Exactly one set of parallel sides	Perpendicular sides	Two sets of parallel sides
Acute angle	Obtuse angle	No parallel sides

- Label your diagram using the words you chose.
- Tape the provided shapes into the appropriate section of the diagram. Tape the extra cards outside of the diagram.
- Complete the following journal prompt in the space below your diagram: Describe the characteristics you used to determine which shapes would fit in each section of the diagram. Were there any shapes that fit into both categories? Justify your thinking.
- Complete two more diagrams using the remaining two sets of Shape Cards. (You do not need to name each shape on the back of the Shape Cards.) Choose a different word from each table to label the diagram each time.

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Introduction to the Revised Mathematics TEKS: Mathematical Process Standards

## Amplifying Instructional Task – Grade 4 Example

## Task B (Scaffolded Task):

Prompt students to complete the following:

- Cut apart the Shape Cards.
- Label the name of each shape on the back of the Shape Cards. Give the most descriptive name possible.
- See your teacher to check the names of your shapes before moving on.
- In your journal, draw a diagram using two circles.
- Choose one word from each of the tables below. Use the vocabulary hint card if you are unsure of the meaning of a word in the second table.

Triangle	Quadrilateral	Trapezoid
Parallelogram	Rectangle	Square

One set of parallel sides	Perpendicular sides	Two sets of parallel sides
Acute angle	Obtuse angle	No parallel sides

## Vocabulary Hint Card

<u>Parallel lines</u> are lines that are in the same plane and never cross because they are the same distance apart.

Perpendicular lines are lines that form right angles where they intersect.

A right angle is an angle that measures 90°.

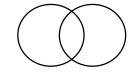
An acute angle is an angle with a measure less than 90°.

An obtuse angle is an angle with a measure greater than 90° and less than 180°.

- Label your diagram using the words you chose.
- Tape the provided shapes into the appropriate section of the diagram. Tape the extra cards outside of the diagram.
- Check in with your teacher.

Teachers should ask the following questions:

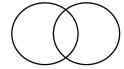
- What do the shapes in each section have in common?
- How are the shapes in the two categories different?
- Complete the following journal prompt in the space below your diagram: Describe the characteristics you used to determine which shapes would fit in each section of the diagram. Were there any shapes that fit into both categories? Justify your thinking.
- Complete two more diagrams using the remaining two sets of Shape Cards. (You do not need to name each shape on the back of the Shape Cards.) Choose a different word from each table to label the diagram each time.



#### Task C (Scaffolded Task):

Prompt students to complete the following:

- Cut apart the Shape Cards.
- Label the name of each shape on the back of the Shape Cards. Give the most descriptive name possible.
- See your teacher to check the names of your shapes before moving on.
- In your journal, draw a diagram using two circles.
- Choose one word from each of the tables below. Use the vocabulary hint card if you are unsure of the meaning of a word in the second table.



Triangle	Quadrilateral	Trapezoid
Parallelogram	Rectangle	Square

One set of parallel sides	Perpendicular sides	Two sets of parallel sides
Acute angle	Obtuse angle	No parallel sides

#### Vocabulary Hint Card

Parallel lines are lines that are in the same plane and never cross because they are the same distance apart.

Perpendicular lines are lines that form right angles where they intersect.

A <u>right angle</u> is an angle that measures 90°.

An acute angle is an angle with a measure less than 90°.

An obtuse angle is an angle with a measure greater than 90° and less than 180°.

- · Label your diagram using the words you chose.
- Tape the provided shapes into the appropriate section of the diagram. Tape the extra cards outside of the diagram.
- Check in with your teacher.

Teachers should ask the following questions:

- What do the shapes in each section have in common?
- How are the shapes in the two categories different?
- Complete the following journal prompt in the space below your diagram:

Describe the characteristics you used to determine which shapes would fit in each section of the diagram. Were there any shapes that fit into both categories? Justify your thinking. Use the word bank below to help you respond.

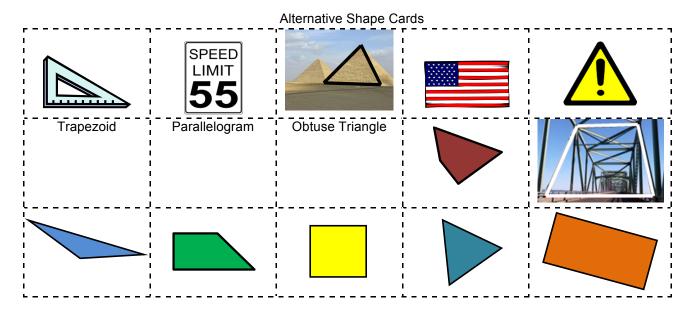
parallel	degrees	sides
perpendicular	four	angles
right	three	obtuse
quadrilateral	triangle	acute

• Complete two more diagrams using the remaining two sets of Shape Cards. (You do not need to name each shape on the back of the Shape Cards.) Choose a different word from each table to label the diagram each time.

#### Task D (Enriched Task):

Materials:

- Student journals
- Alternative Shape Cards (3 sets per student)



Prompt students to complete the following:

- Cut apart the Alternative Shape Cards.
- Label the name of each shape or draw an example of each shape on the back of the shape cards. Give the most descriptive name possible when writing a name.
- In your journal, draw a diagram using three circles.
- Choose any three words from the table below.

$\left( \right)$	Ĺ	X	
4		ノ	

One set of parallel sides	Perpendicular sides	Two sets of parallel sides
Acute angle	Obtuse angle	No parallel sides

- · Label your diagram using the words you chose.
- Tape the provided shapes into the appropriate section of the diagram. Tape the extra cards outside of the diagram.
- Complete the following journal prompt in the space below your diagram: Explain why you placed the shapes in each of the seven sections of the diagram. If sections of the diagram are empty, explain why.
- Complete two more diagrams using the remaining two sets of Alternative Shape Cards. (You do not need to name each shape on the back of the Shape Cards.) Choose a different word from each table to label the diagram each time.

#### The Original Task

Solve for products of decimal to the hundredths, including situations involving money, using strategies based on place-value understanding, properties of operations, and the relationship to the multiplication of whole numbers. 5(3)(E)

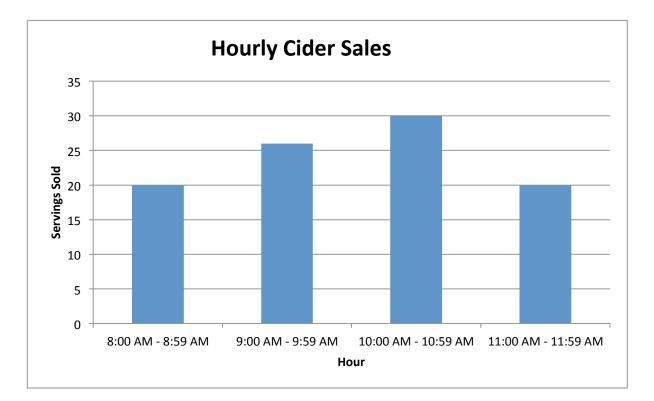
A local farmer bottles cider in 1.5 gallon bottles. If the farmer brings 6 bottles to the farmer's market to sell, how many gallons is she bringing to sell?

#### The Amplified Task

Materials to make available: Reference Materials

#### Task A (Amplified Task):

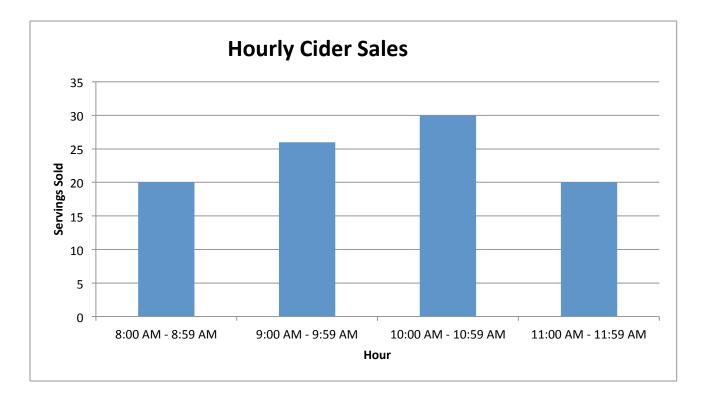
A local farmer sold cider at the farmer's market. The farmer bottles her cider in 1.5 gallon bottles, and she brought 6 bottles of cider to the farmer's market. The graph below shows her hourly cider sales.



- If each serving of cider sold for \$3.50, how much was the farmer's total sales?
- If she sold all of her cider, how many fluid ounces were in each serving?
- Does the amount of the total sales represent her gross income or her net income? Explain your answer.

Task B (Scaffolded Task):

A local farmer sold cider at the farmer's market. The graph below shows her hourly cider sales.



- How many servings of cider did the farmer sell between 8:00 A.M. and 8:59 A.M.? 9:00 A.M. and 9:59 A.M.? 10:00 A.M. and 10:59 A.M.? 11:00 A.M. and 11:59 A.M.?
- If each serving of cider sold for \$3.50, how much was the farmer's total sales?
- How many fluid ounces are in one 1.5 gallon bottle?
- If the farmer bottles her cider in
  1.5 gallon bottles, and she brought
  6 bottles of cider to the farmer's market, how many fluid ounces of cider were in each serving?
- Bottles
   Process
   Of Fluid ounces

Total Number

of Fluid

 Does the amount of the total sales represent her gross income or her net income? Explain your answer.

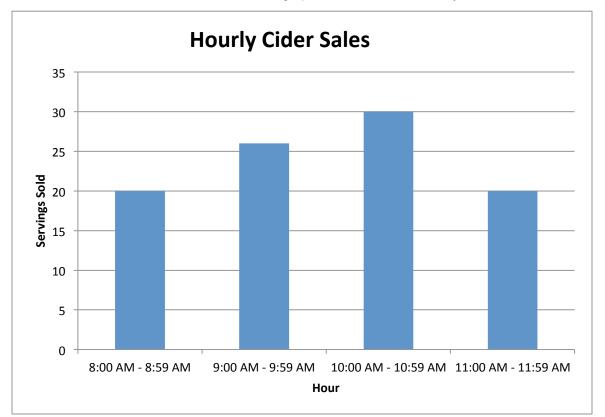
Gross Income	The total amount of income
Net Income	The amount after expenses are deducted

income because

## Amplifying Instructional Task – Grade 5 Example

#### Task C (Scaffolded Task):

A local farmer sold cider at the farmer's market. The graph below shows her hourly cider sales.



- How many servings of cider did the farmer sell between 8:00 A.M. and 8:59A.M.? 9:00 A.M. and 9:59 A.M.? 10:00 A.M. and 10:59 A.M.? 11:00 A.M. and 11:59 A.M.?
- If each serving of cider sold for \$3.50, how much was the farmer's total sales?
- How many fluid ounces are in one 1.5 gallon bottle?
- If the farmer bottles her cider in
  1.5 gallon bottles, and she brought
  6 bottles of cider to the farmer's market, how many fluid ounces of cider were in each serving?
- Does the amount of the total sales represent her gross income or her net income? Explain your answer.

The total sales represent her \_\_\_\_\_

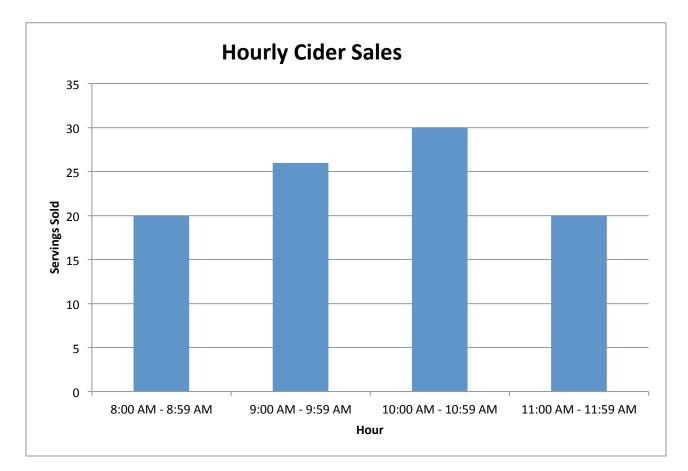
Bottles	Process	of Fluid ounces

Total Number

Gross Income	The total amount of income
Net Income	The amount of income after expenses are deducted

#### Task D (Enriched Task):

A local farmer sold cider at the farmer's market. The farmer bottles her cider in 1.5 gallon bottles, and she brought 6 bottles of cider to the farmer's market. The graph below shows her hourly cider sales.



Expense	Cost
Cider Ingredients	\$24.00
Bottle (size 1.5 gallons)	\$1.75 each
1 pkg Bottle Labels	\$5.69
Hot Serve Cups (pkg of 25 cups with lids)	\$2.59 each
Gas for Car	\$13.56

- If the farmer sold all of her cider, how many fluid ounces of cider were in each serving?
- If each serving of cider sold for \$3.50, how much profit did she make? Explain to the farmer how you determined her profit.