# lesson twenty-five - student resource sheet

**Lesson Objective:** Multiply a decimal by a decimal, in the vertical form, with factors to the tenths or hundredths.

## Vocabulary Box

**regroup** – Exchange amounts of equal value to rename a number. Examples: 14 ones can be regrouped as 1 ten and 4 ones because 14 = 10 + 4. 4 tens and 2 ones can be regrouped as 42 ones because 40 + 2 = 42.

**partial products** – The smaller products you get when you multiply each place value of a multi-digit number. Example: $14 \times 3 = (3 \times 4) + (3 \times 10) = 12 + 30 = 42$. In this problem, 12 and 30 are the two partial products.

## Independent Practice

Directions: Complete the following practice problems on your own. Your teacher will review the answers. Make sure you show all your work.

**I.** Write the decimal point in the correct place in each product. You may need to add zeros to the left of your product to place the decimal point correctly.

1. $0.75 \times 0.3 = 225$
2. $3.06 \times 1.4 = 4284$
3. $0.08 \times 0.29 = 232$
4. $5.9 \times 1.09 = 6431$

**II.** Find each product. Remember to write the decimal point in your product!

1. $\begin{array}{r} 0.6 \\ \times 0.8 \\ \hline \end{array}$
2. $\begin{array}{r} 5.7 \\ \times 0.4 \\ \hline \end{array}$

3. $\begin{array}{r} 1.17 \\ \times 0.5 \\ \hline \end{array}$

4. $\begin{array}{r} 0.63 \\ \times 0.87 \\ \hline \end{array}$


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Directions: Write the factors in each problem as decimals. Then multiply the decimals to find the product.

1. $\frac{9}{10} \times \frac{1}{10} =$ _____

2. $\frac{3}{10} \times \frac{17}{100} =$ _____

3. $\frac{51}{100} \times \frac{29}{100} =$ _____

4. $\frac{1}{2} \times \frac{3}{4} =$ _____

## Problem Solving

Directions: Use problem-solving strategies to solve each word problem.

Anita bought two kinds of wire to make jewelry — thick wire to make necklaces and thin wire to make earrings. She bought 0.75 meter of thick wire, which cost $2.49 per meter. She bought 0.6 meter of thin wire, which cost $1.35 per meter.

1. How much did Anita spend on the thick wire?

   Figure out which operation you need to use to solve the problem. You need to find the total cost of buying some wire, and you know the price of each meter of that wire. So, you can use the operation _____ to find the total cost of the wire.

   Use that operation to find the total cost. You can think of the amount of wire and the price per meter as whole numbers to help you find the total cost.

   Round your answer to the nearest penny, just like stores do.

   Finally, write your answer in a complete sentence, using words from the problem.

2. How much did Anita spend on the thin wire she bought? Remember to write your answer in a complete sentence.

3. What is the total amount of money Anita spent on all the wire she bought? Remember to write your answer in a complete sentence.


Directions: Use what you know about multiplying decimals to answer each question.

1. Write the decimal point in the correct place in the product below. Add zeros, as needed.

   $0.46 \times 0.9 = 414$

2.
$$\begin{array}{r} 3.5 \\ \times 4.2 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 6.09 \\ \times 1.7 \\ \hline \end{array}$$

# lesson twenty-six - student resource sheet

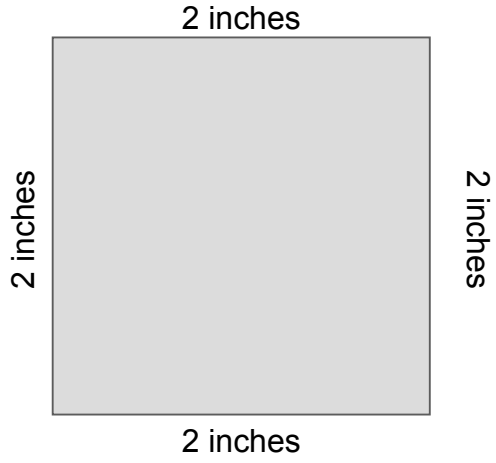
**Lesson Objective:** Find the perimeter and area of a square or rectangle using formulas.

## Vocabulary Box

**perimeter** – The sum of the side lengths of a polygon. Examples: The perimeter of the rectangle shown below is 10 inches. The perimeter of the square shown below is 8 inches.

**area** – The amount of space that covers a shape or figure. Examples: The area of the rectangle shown below is 6 square inches. The area of the square shown below is 4 square inches.

**formula** – A mathematical rule. Examples: The formula for the perimeter of a rectangle is $P = 2l + 2w$, where $P$ represents perimeter, $l$ represents length, and $w$ represents width. The formula for the area of a rectangle is $A = l \times w$, where $A$ represents area, $l$ represents length, and $w$ represents width.

# Guided Practice

Directions: Complete the following practice problems. Your teacher will review the answers. Make sure you show all your work, and remember to write each answer in the correct units.

**I.** Use a formula to find the area of each rectangle. You may work with a partner.

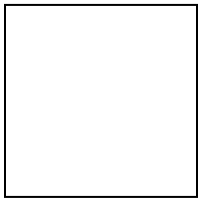
1.

3 inches

2.5 inches 

Area = _____

2.

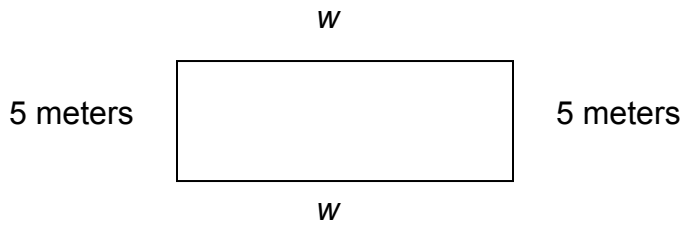


9 inches

Area = _____

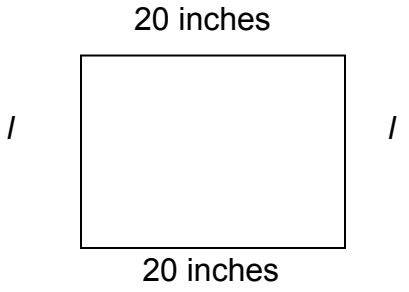
**II.** Use the formula for the area of a rectangle to find the unknown length or width. You may work with a partner.

1.




Area = 70 square meters
Width = _____

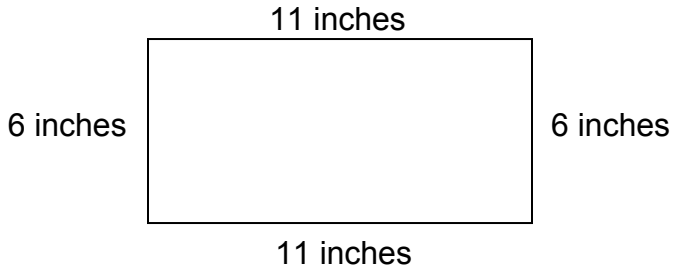
2.




Area = 160 square inches
Length = _____

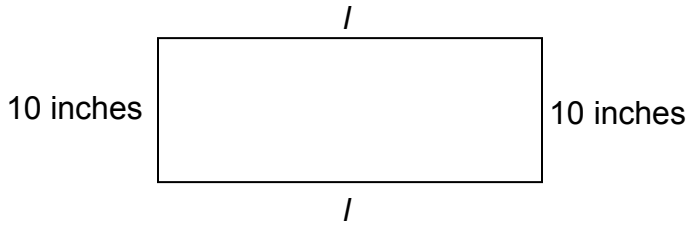
**III.** Use the correct formula to find the missing information for each figure. You may work with a partner.

1.




Perimeter = _____

2.

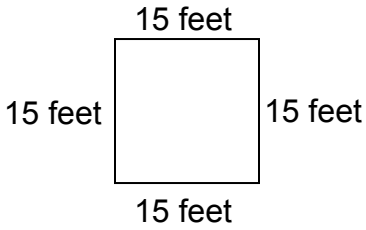



Perimeter = 60 inches

Length = _____

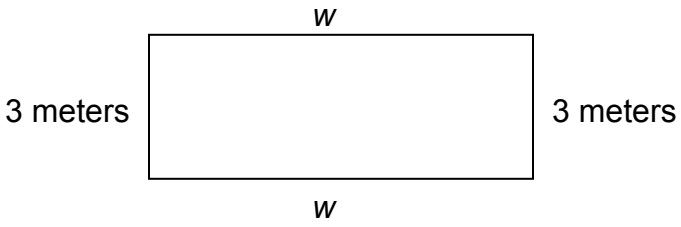
**IV.** Use the correct formula to find the missing information for each figure. Please work independently.

1.




Perimeter = _____

2.




Perimeter = 14 meters

Width = _____

# Summary/Closure

**A. Vocabulary Words**

Directions: Circle the correct answer.

1. The area of a figure is the _____.
   A. amount of space the figure covers
   B. distance around the outside of the figure
   C. amount of space outside the figure
   D. distance across the figure

2. The perimeter of a figure is the _____.
   A. amount of space the figure covers
   B. distance around the outside of the figure
   C. amount of space outside the figure
   D. distance across the figure

3. I can _____ the length and width to find the area of any rectangle.
   A. add
   B. subtract
   C. multiply
   D. divide

4. Which of these units should NOT be used to describe a measurement of perimeter?
   A. inches
   B. centimeters
   C. square feet
   D. kilometers

**B. Summarize What We Learned Today**

Draw a square and a rectangle, and choose a label for the length of each figure's four sides. Do not worry if your drawing is not to scale, just make sure your square has equal sides and that your rectangle has equal lengths and equal widths. Find the perimeter and area of each figure, and explain how you found each measurement. You will use these explanations as a personal reminder.

# lesson twenty-seven - student resource sheet

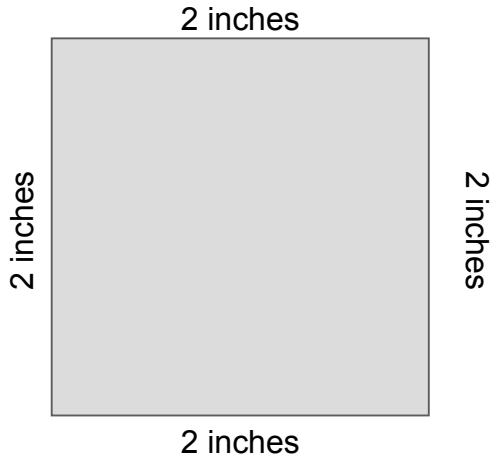
**Lesson Objective:** Find the perimeter and area of a square or rectangle using formulas.

## Vocabulary Box

**perimeter** – The sum of the side lengths of a polygon. Examples: The perimeter of the rectangle shown below is 10 inches. The perimeter of the square shown below is 8 inches.

**area** – The amount of space that covers a shape or figure. Examples: The area of the rectangle shown below is 6 square inches. The area of the square shown below is 4 square inches.

**formula** – A mathematical rule. Examples: The formula for the perimeter of a rectangle is $P = 2l + 2w$, where $P$ represents perimeter, $l$ represents length, and $w$ represents width. The formula for the area of a rectangle is $A = l \times w$, where $A$ represents area, $l$ represents length, and $w$ represents width.

## Independent Practice

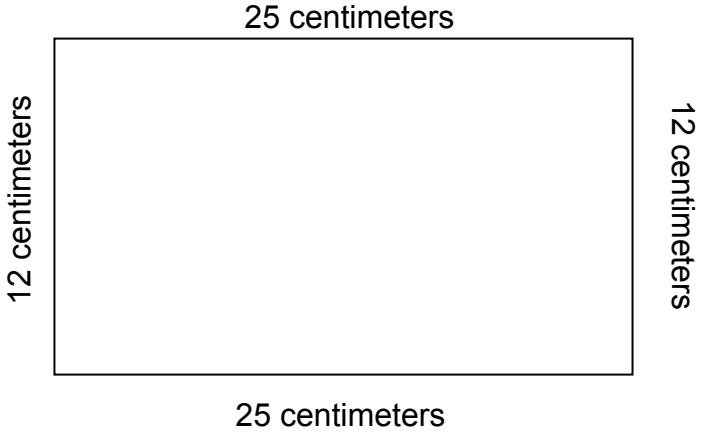
Directions: Complete the following practice problems on your own. Your teacher will review the answers. Make sure you show all your work.

**I.** Find the perimeter and area of each rectangle. Remember to use the correct units for each measurement.

1.

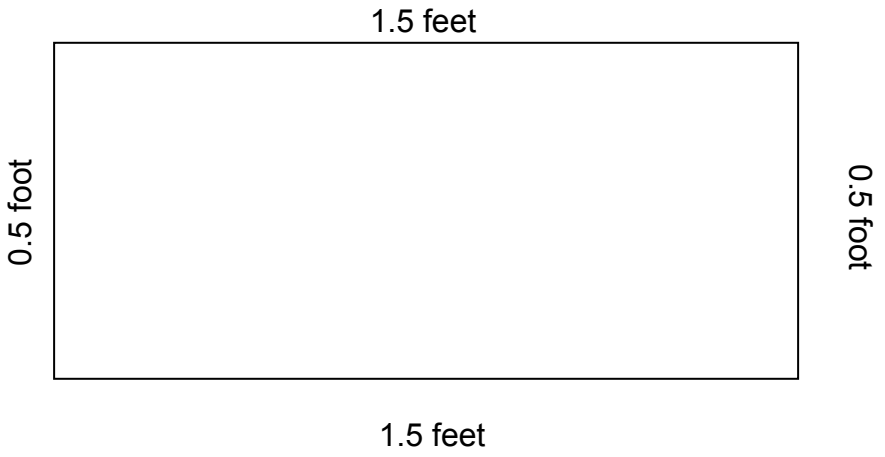

Perimeter = _____ Area = _____

2.




Perimeter = _____ Area = _____

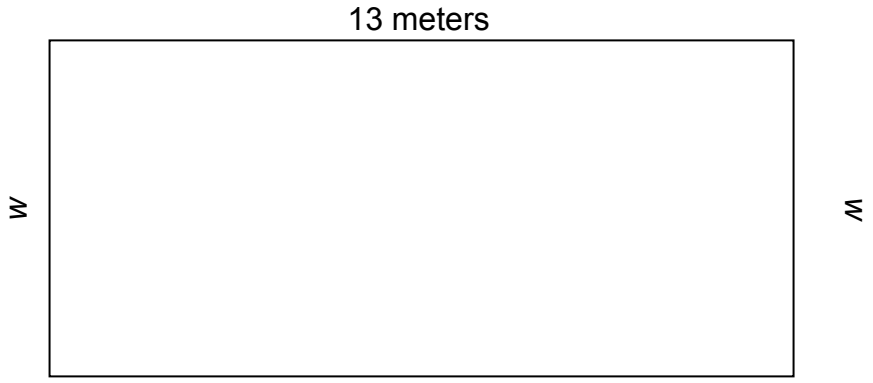
3.




Perimeter = _____ Area = _____

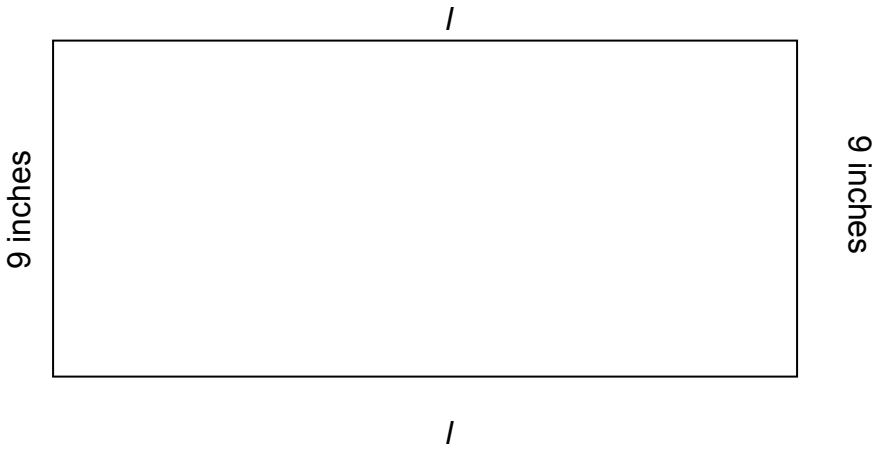
**II.** Use a formula and the given measurements to find the unknown length or width of each rectangle.

1.




Perimeter = 38 meters Width = _____

2.




Area = 108 square inches  Length = _____

# lesson twenty-seven - student resource sheet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Directions: For each problem, use a ruler to draw a rectangle that has the given measurements. Use whole numbers only.

1. Area = 12 square inches  Perimeter = 14 inches

2. Area = 9 square inches  Perimeter = 12 inches

# Problem Solving

Directions: Use problem-solving strategies to solve the word problems.

Students in Amy's science class take turns decorating the bulletin boards in the classroom. This month, Amy is decorating a bulletin board using an ocean theme. Amy plans to cover the entire bulletin board with blue paper. Then, she will put a rope border around the bulletin board. The diagram below shows the size and shape of the bulletin board.


How much blue paper will Amy use?

1. Find how much paper will cover the surface of the bulletin board by finding the _____ of the bulletin board.

2. Solve the problem.

3. Write your answer in a complete sentence, using words from the problem.

How much rope will Amy use?

4. Find how much rope will go around the outside of the bulletin board by finding the _____ of the bulletin board.

5. Solve the problem.

6. Write your answer in a complete sentence, using words from the problem.


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Directions: Use what you know about area and perimeter to answer the questions.

1. What is the formula for the area of a rectangle?

2. What is the formula for the perimeter of a rectangle?

3. What are the area and perimeter of the rectangle pictured below?