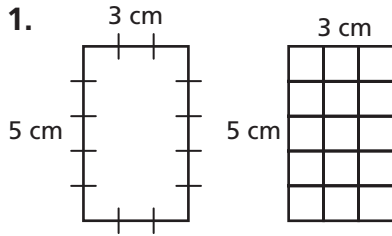


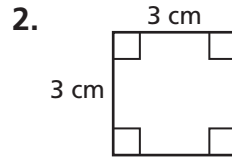
# Homework

Find the perimeter and area of each rectangle or square.



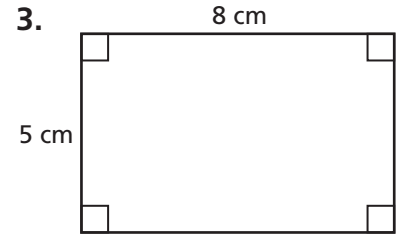
$$P = \underline{\hspace{2cm}}$$

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



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

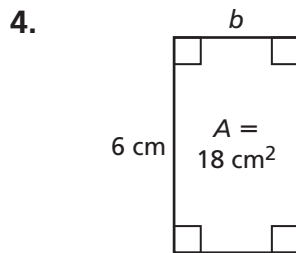
$$A = \underline{\hspace{2cm}}$$



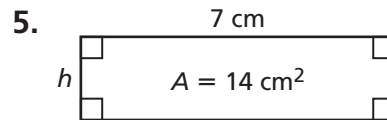
$$P = \underline{\hspace{2cm}}$$

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

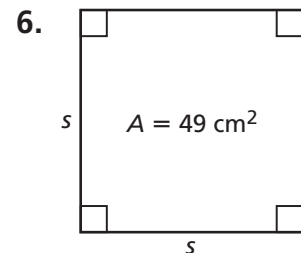
Find the unknown side length.



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



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



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

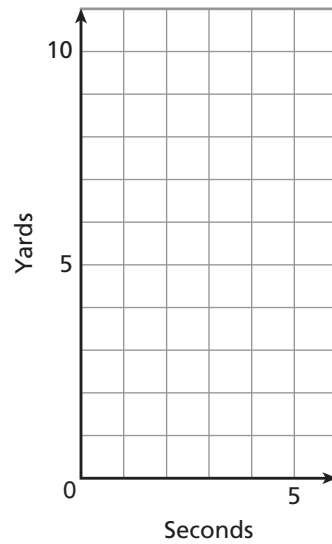
Solve.

7. Kaya is wallpapering one wall of her room. The wall is 10 ft long and 8 ft tall. How many square feet of wallpaper will Kaya need? \_\_\_\_\_
8. Mia's room is 12 ft long and 10 ft wide. She wants to put a border at the top of the walls. How many feet of border does she need? \_\_\_\_\_
9. A rectangular wall measures 15 ft along the floor. The area of the wall is 180 ft<sup>2</sup>. What is the height of the wall?  
\_\_\_\_\_
10. Corey is tiling a rectangular bathroom that is 6 ft by 8 ft. Each tile covers 2 ft<sup>2</sup>. How many tiles will he need?  
\_\_\_\_\_

# Remembering

1. Circle the unit rate in the table. Use the unit rate to complete the table. Draw the graph and show the unit rate triangle.

Time	Distance
Seconds	Yards
1	2
	10
3	
2	
	8



2. Circle each Ratio Table. For each Ratio Table, write the basic ratio.

**A.**

<input type="checkbox"/>	<input type="checkbox"/>
3 : 5	
6 : 10	
9 : 15	
15 : 20	
18 : 25	

**B.**

<input type="checkbox"/>	<input type="checkbox"/>
2 : 3	
4 : 6	
6 : 9	
8 : 12	
10 : 15	

**C.**

<input type="checkbox"/>	<input type="checkbox"/>
4 : 9	
8 : 18	
12 : 27	
16 : 36	
20 : 45	

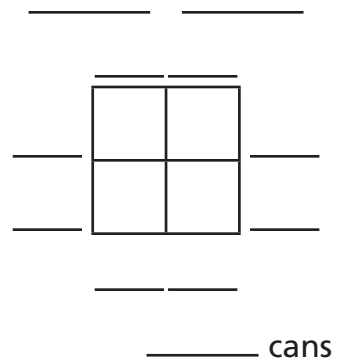
**D.**

<input type="checkbox"/>	<input type="checkbox"/>
2 : 6	
2 : 8	
3 : 9	
4 : 12	
5 : 15	

Use a Factor Puzzle to solve the problem.

3. To make pink paint, Brianna mixed 8 cans of red paint and 14 cans of white paint. She has 20 more cans of red paint. How many cans of white paint does she need to mix in to get the same color pink?

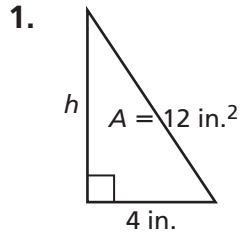
4. **Stretch Your Thinking** Natalie and Dan both start saving money at the same time and both save at their own constant rates. When Dan has saved \$6, Natalie has saved \$14. How much more than Dan will Natalie have saved when Dan has saved \$15?



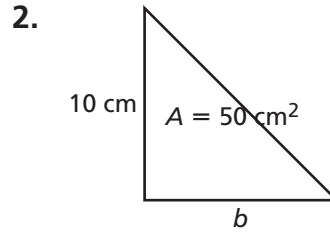
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# Homework

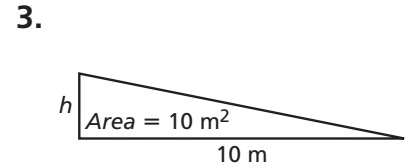
Find the unknown side length.



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



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

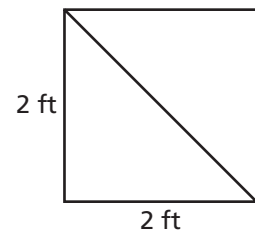


$$h = \underline{\hspace{2cm}}$$

Solve.

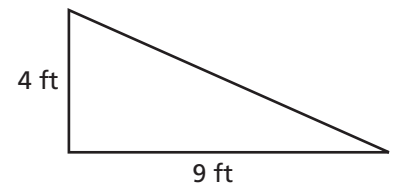
4. A diagonal divides a square patch of garden that is 2 ft on a side. What is the area on either side of the diagonal?

\_\_\_\_\_



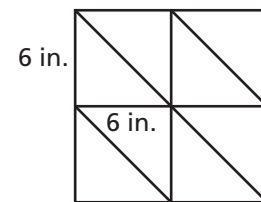
5. A banner in the gym is in the shape of a right triangle. It has a height of 4 ft and a base of 9 ft. What is the area of the banner?

\_\_\_\_\_



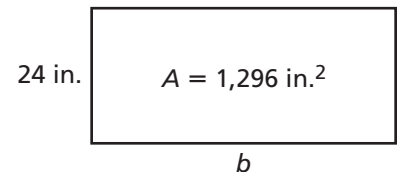
6. A quilt block is made up of 8 right triangles. Each triangle has a 6-inch base and a 6-inch height. How much fabric is needed to cover the back of the quilt block?

\_\_\_\_\_



7. Jeremy bought a piece of fabric that has an area of  $1,296 \text{ in.}^2$ . He cut it in half diagonally to make two equal triangles. One of the triangles has a height of 24 inches. How long is the base?

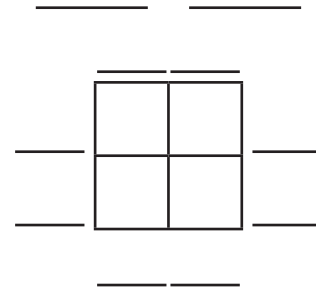
\_\_\_\_\_



# Remembering

Use a Factor Puzzle to solve the problem.

- Hakim made a salad using 4 eggs and 6 potatoes. The next time he made the same salad, he used 10 eggs. For the salad to taste the same, how many potatoes did he use?



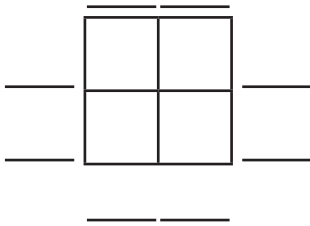
\_\_\_\_\_ potatoes

Show the Factor Puzzle for each proportion. Solve the proportion.

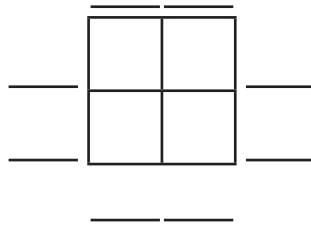
2.  $14:35 = 18:a$

3.  $b:63 = 8:14$

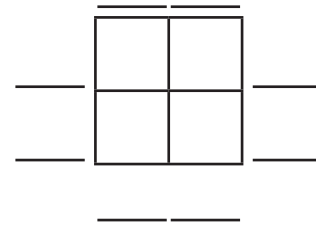
4.  $27:45 = 21:c$



$a =$  \_\_\_\_\_

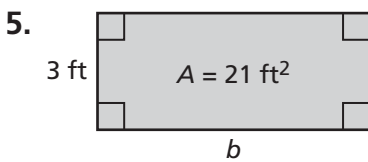


$b =$  \_\_\_\_\_

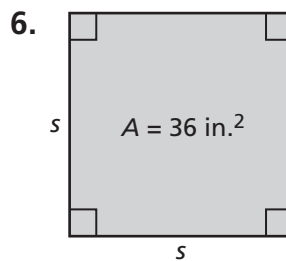


$c =$  \_\_\_\_\_

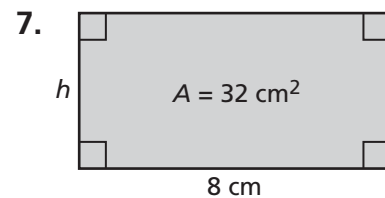
Find the unknown side length.



$b =$  \_\_\_\_\_



$s =$  \_\_\_\_\_



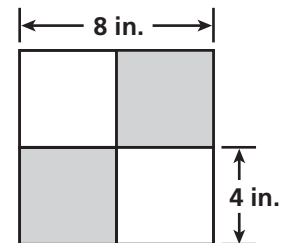
$h =$  \_\_\_\_\_

8. **Stretch Your Thinking** Find the area of the shaded part of this square. Describe your method.

\_\_\_\_\_

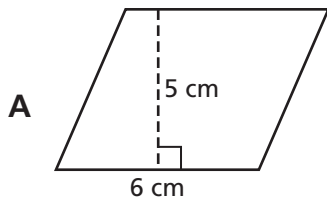
\_\_\_\_\_

\_\_\_\_\_

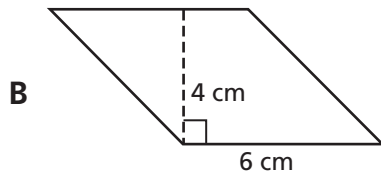


# Homework

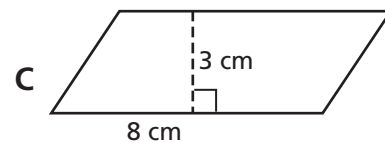
1. Look at the parallelograms. Which two parallelograms have the same area? Show your work.



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

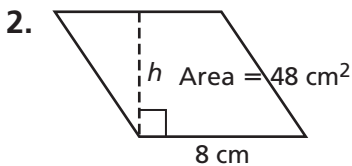


$A = \underline{\hspace{2cm}}$

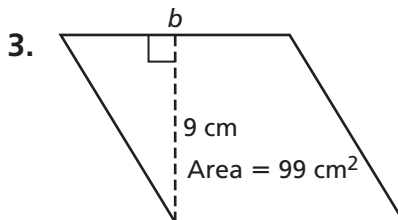


$A = \underline{\hspace{2cm}}$

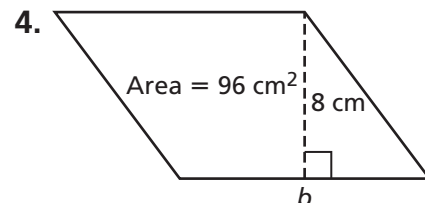
Find the unknown side length.



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



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



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

5. Jo designed a flowerbed shaped like a parallelogram. The flowerbed has an area of  $475 \text{ in.}^2$  and a base of 25 in. What is the height of Jo's flowerbed?

\_\_\_\_\_

Use the landscape design for Exercises 6–8.

Show your work.

6. How many square feet will the white stone cover in the landscape design?

\_\_\_\_\_

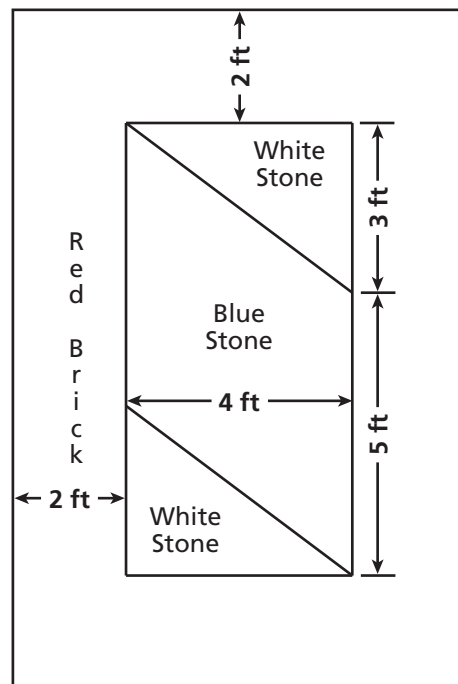
7. There is a 2-foot border of brick, as shown around the design. How many square feet will the brick cover in the landscape design?

\_\_\_\_\_

8. What is the perimeter of the landscape design?

\_\_\_\_\_

Landscape Design



# Remembering

Solve.

Show your work.

1. Brendan makes a cranberry-orange drink by mixing 15 cups of orange juice with 10 cups of cranberry juice. If he uses 27 cups of orange juice, how many cups of cranberry juice should he use in order for the drink to taste the same?

\_\_\_\_\_

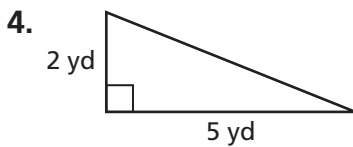
2. What is the basic ratio of red to white for a paint mixture of 14 pints of red paint and 35 pints of white paint?

\_\_\_\_\_

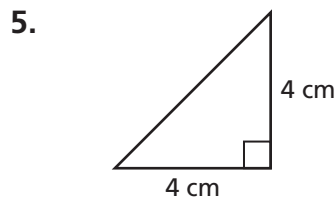
3. A vase holds 10 white roses and 6 red roses. What is the basic ratio of white to red roses?

\_\_\_\_\_

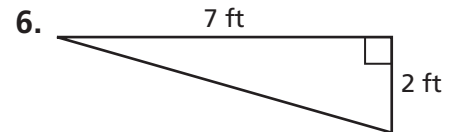
Find the area of each right triangle.



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



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



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

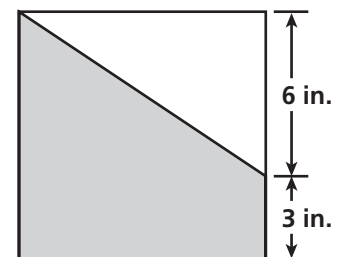
7. **Stretch Your Thinking** Find the area of the shaded part of this square. Describe your method.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

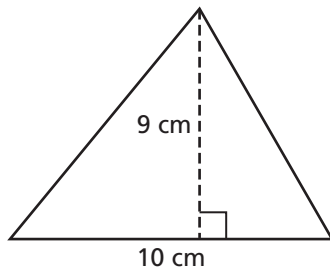
\_\_\_\_\_



# Homework

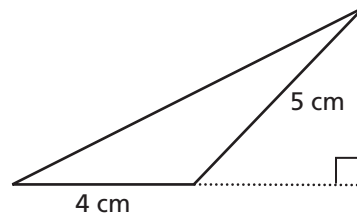
Find the area of each triangle.

1.



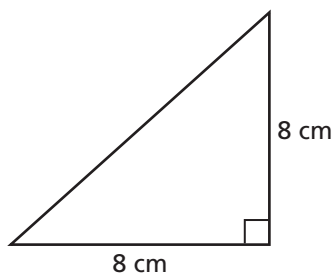
\_\_\_\_\_

2.



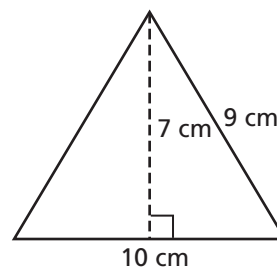
\_\_\_\_\_

3.



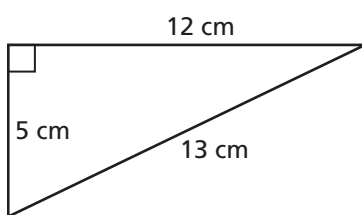
\_\_\_\_\_

4.



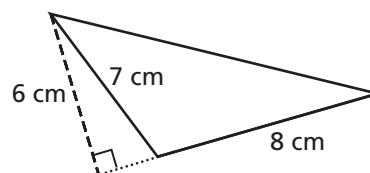
\_\_\_\_\_

5.



\_\_\_\_\_

6.



\_\_\_\_\_

7. An art project requires a triangular piece of cardboard having a base measure of 10 cm and a height of 6 cm. What is the area of a triangular face of the cardboard?

\_\_\_\_\_

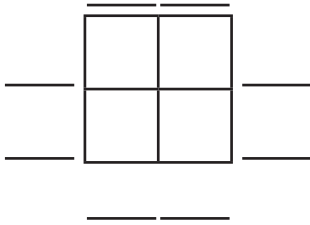
8. Brittany and Will each made a triangular sign with an area of  $8 \text{ ft}^2$ . The base of Brittany's triangle is half as long as the base of Will's. How do the heights of the triangles compare?

\_\_\_\_\_

# Remembering

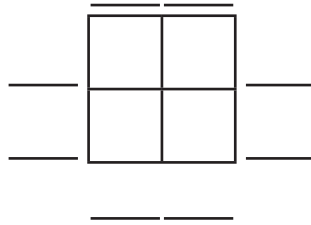
Use a Factor Puzzle to solve each proportion.

1.  $30:25 :: 42:x$



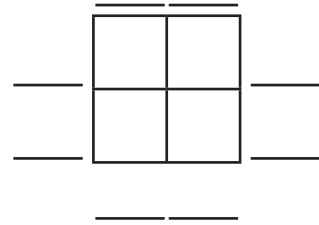
$x = \underline{\hspace{2cm}}$

2.  $40:24 :: 35:y$



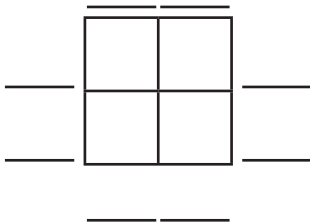
$y = \underline{\hspace{2cm}}$

3.  $z:63 :: 40:35$



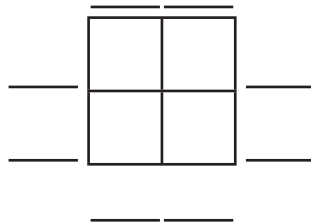
$z = \underline{\hspace{2cm}}$

4.  $14:21 :: 10:a$



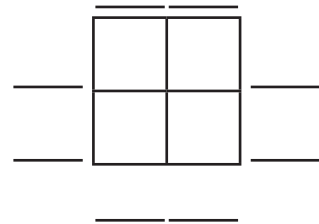
$a = \underline{\hspace{2cm}}$

5.  $b:27 :: 16:72$



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

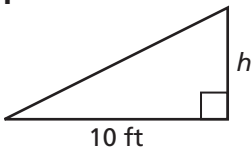
6.  $56:35 :: c:15$



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

Find the unknown side length.

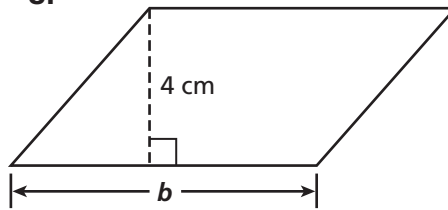
7.



$A = 25 \text{ ft}^2$

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

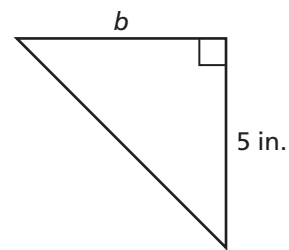
8.



$A = 36 \text{ cm}^2$

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

9.



$A = 15 \text{ in.}^2$

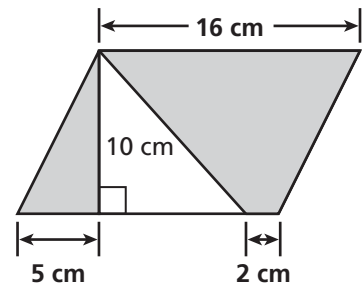
$b = \underline{\hspace{2cm}}$

10. **Stretch Your Thinking** Find the area of the shaded part of this parallelogram. Describe your method.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

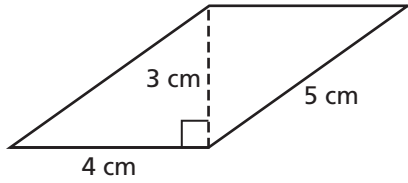




# Homework

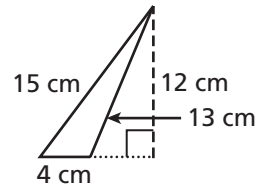
Find the perimeter and area.

1.



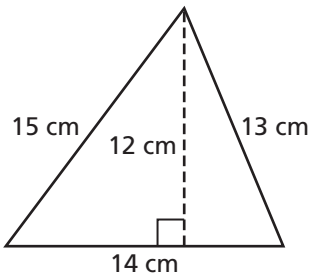
$P = \underline{\hspace{2cm}}$        $A = \underline{\hspace{2cm}}$

2.



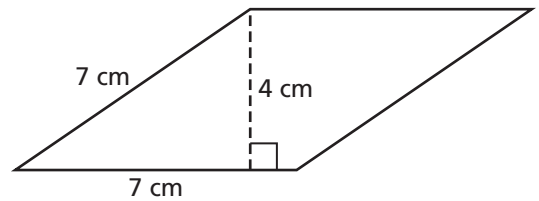
$P = \underline{\hspace{2cm}}$        $A = \underline{\hspace{2cm}}$

3.



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

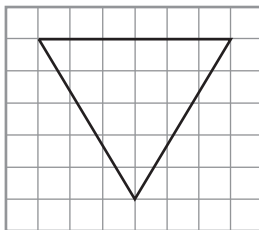
4.



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

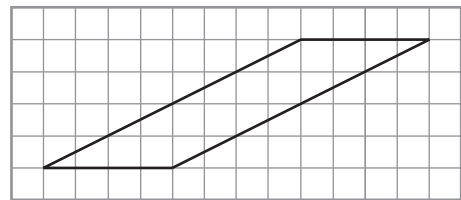
Choose a base and a corresponding height with lengths you can find without a ruler. Then find the area. Each square represents  $1 \text{ cm}^2$ .

5.



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

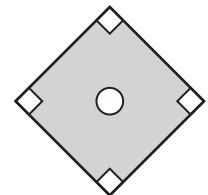
6.



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

7. A baseball diamond has an area of  $3,600 \text{ ft}^2$ . What is the distance between each base? How far does a runner run around the bases when hitting a home run?

\_\_\_\_\_



8. A postcard in the shape of a parallelogram has an area of  $12 \text{ in}^2$ . What are two possible lengths of bases and heights for the postcard?

\_\_\_\_\_

# Remembering

Solve.

1. A pet shelter has 3 dogs for every 2 cats. If the shelter has 15 dogs, how many cats does it have?

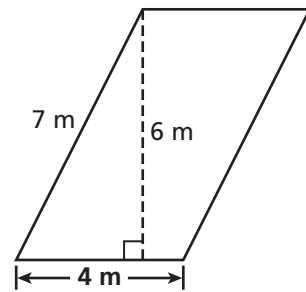
\_\_\_\_\_

2. Ten large marbles weigh the same as 14 small marbles. How many large marbles weigh the same as 35 small marbles?

\_\_\_\_\_

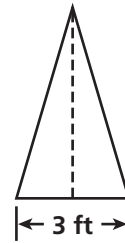
3. A parking space is in the shape of a parallelogram as shown at the right. What is the area of the parking space?

\_\_\_\_\_



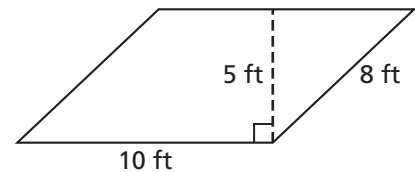
4. Kevin has a triangular kite that is 3 feet wide and has an area of 6 square feet. How tall is the kite?

\_\_\_\_\_



5. A hallway is in the shape of a parallelogram as shown at the right. How many square feet of carpet are needed to cover the floor of the hallway?

\_\_\_\_\_



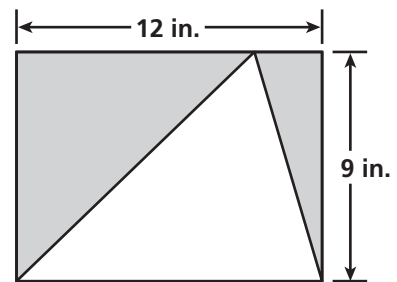
6. **Stretch Your Thinking** Find the area of the shaded part of this rectangle. Describe your method.

\_\_\_\_\_

\_\_\_\_\_

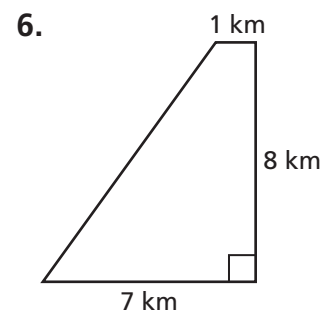
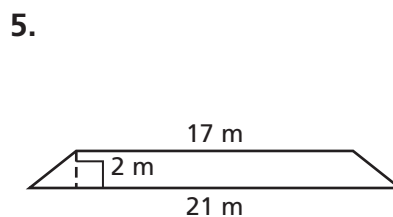
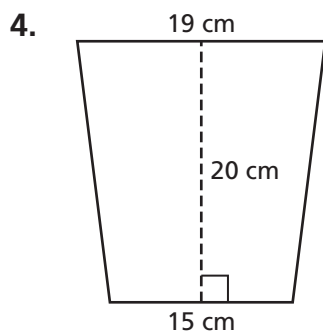
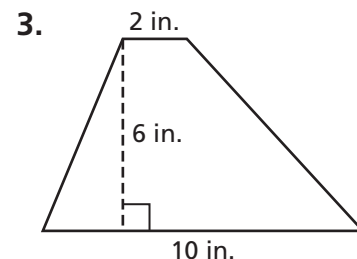
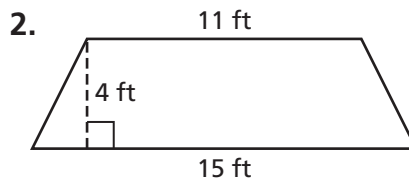
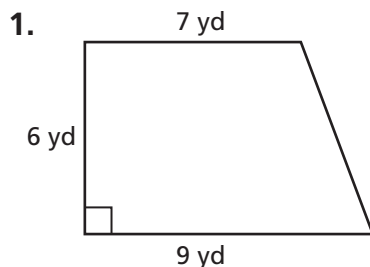
\_\_\_\_\_

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**Homework**

Find the area.



7. A playground is in the shape of an isosceles trapezoid. The top base is 10 ft. The bottom base is 42 ft. The height is 12 ft. A slanted side is 20 ft. What is the distance around the playground?
- \_\_\_\_\_

8. One part of the roof of a house is in the form of an isosceles trapezoid. The bottom base is 28 feet long. The top base is 6 feet long, and the height is 16 feet. What is the area of this portion of the roof?
- \_\_\_\_\_

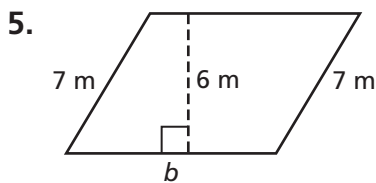
9. A place mat is in the form of an isosceles trapezoid. One base of the trapezoid is 17 inches long, and the other base is 13 inches long. The height is 12 inches. What is the area of the place mat?
- \_\_\_\_\_

# Remembering

Solve.

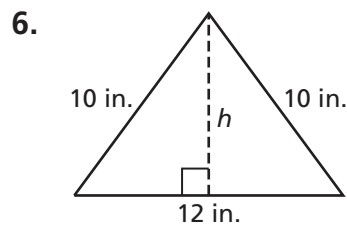
- In the library, there are 4 printers and 10 computers. If the ratio stays the same, how many printers will there be when there are 35 computers?  
\_\_\_\_\_
- An art club has 12 girls and 15 boys. A chess club has the same ratio of girls to boys as the art club. If there are 8 girls in the chess club, how many boys are there?  
\_\_\_\_\_
- Ned and Fred both start saving money the same week and both continue to save money at their own constant weekly rates. When Fred has saved \$28, Ned has saved \$35. How much will Ned have saved when Fred has saved \$36?  
\_\_\_\_\_
- Sarah makes a sauce by mixing 8 tablespoons of honey with 12 tablespoons of mustard. To make the sauce taste the same, how many tablespoons of honey should she mix with 21 tablespoons of mustard?  
\_\_\_\_\_

Find the unknown side length.



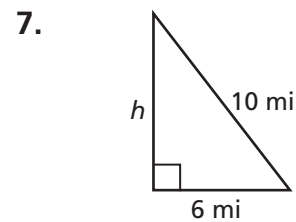
$$A = 54 \text{ m}^2$$

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



$$A = 48 \text{ in.}^2$$

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



$$P = 24 \text{ mi}$$

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

8. **Stretch Your Thinking** Find the area of the white rhombus. Describe your method.

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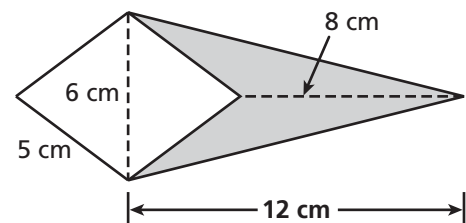
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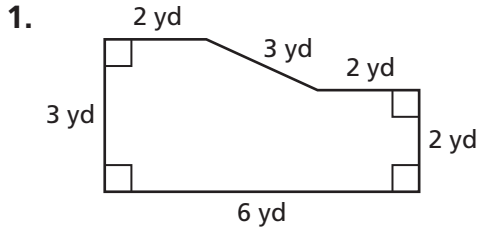


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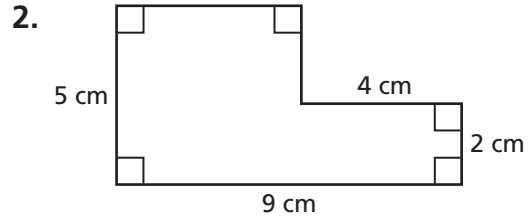


# Homework

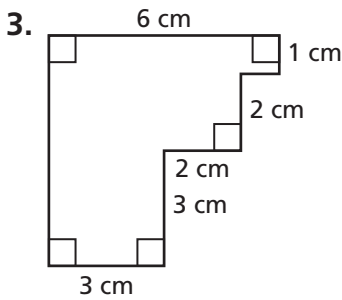
Find the perimeter and area.



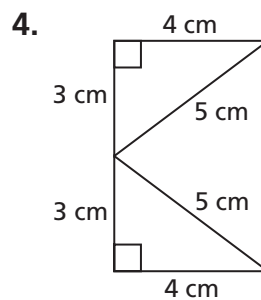
$P = \underline{\hspace{2cm}}$        $A = \underline{\hspace{2cm}}$



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

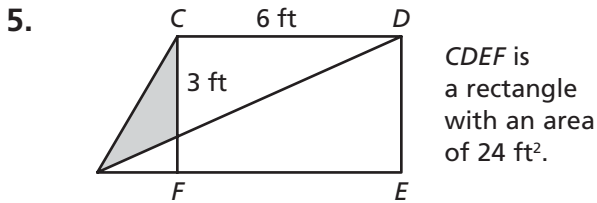


$P = \underline{\hspace{2cm}}$        $A = \underline{\hspace{2cm}}$

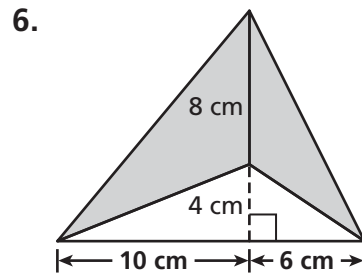


$P = \underline{\hspace{2cm}}$        $A = \underline{\hspace{2cm}}$

Find the area of the shaded part.



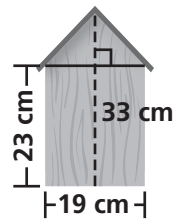
$A = \underline{\hspace{2cm}}$



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

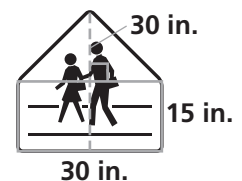
Solve.

7. Paul is making a birdhouse with the measurements shown on the drawing at the right. What is the area of the back of the birdhouse?



\_\_\_\_\_

8. How much metal will be needed to make 4 of the signs shown at the right?



\_\_\_\_\_

# Remembering

Solve each proportion.

1.  $45:63 :: 10:a$

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

2.  $28:21 :: 20:b$

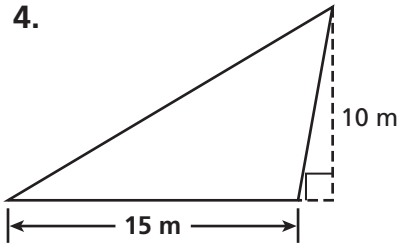
$b = \underline{\hspace{2cm}}$

3.  $c:72 :: 15:45$

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

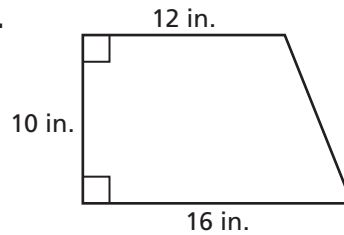
Find the area.

4.



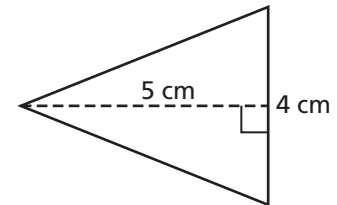
$A = \underline{\hspace{2cm}}$

5.



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

6.



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

Solve.

7. A quilt piece is in the shape of a trapezoid. The top parallel side measures 4 cm and the bottom parallel side measures 8 cm. The height is 5 cm. What is the area of the quilt piece?

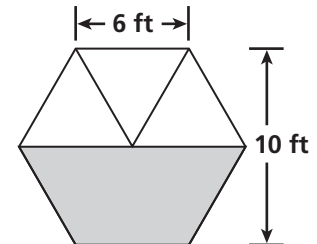
\_\_\_\_\_

8. A metal wastebasket has a 6 in. by 6 in. square bottom and an open square top 10 in. by 10 in. Each side of the wastebasket is a trapezoid with a height of 12 in. How many square inches of metal make up the wastebasket?

\_\_\_\_\_

9. **Stretch Your Thinking** The measurements given are rounded to the nearest foot. Use these measurements to find the approximate area of the trapezoid. Describe your method.

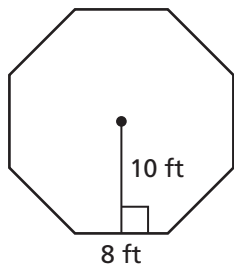
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 \_\_\_\_\_  
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 \_\_\_\_\_



# Homework

Find the perimeter and area.

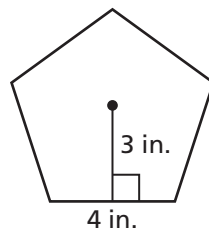
1.



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

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

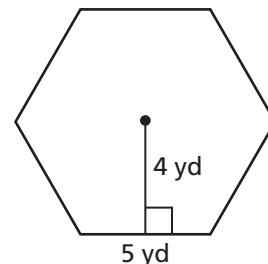
2.



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

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

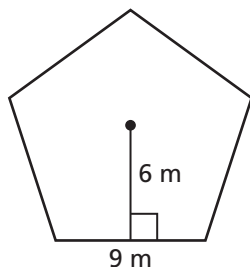
3.



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

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

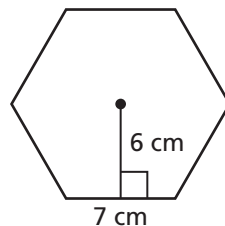
4.



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

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

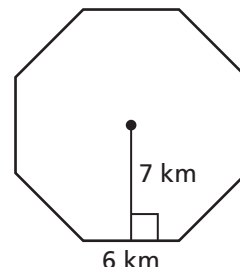
5.



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

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

6.



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

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

Solve.

7. Talia made a pattern for a potholder that is a regular 12-sided polygon. The perimeter of the potholder pattern is 36 in. The distance to the center is 6 in. to the nearest in. What is the area of the potholder to the nearest in.<sup>2</sup>?

\_\_\_\_\_

8. A house number is displayed on a plaque in the shape of a regular 7-sided polygon. The area of the plaque is 70 in.<sup>2</sup> The perpendicular distance from a side to the center is 5 in. to the nearest inch. What is the perimeter of the plaque?

\_\_\_\_\_

# Remembering

Solve each proportion.

1.  $m:63 :: 16:14$

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

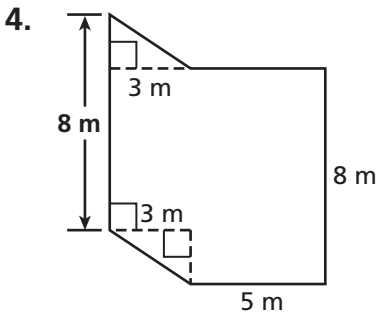
2.  $8:36 :: 14:d$

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

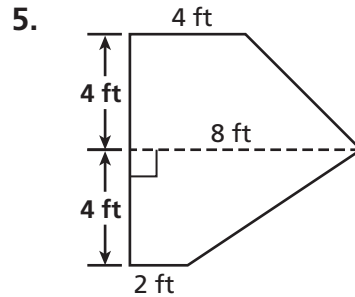
3.  $n:40 :: 21:56$

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

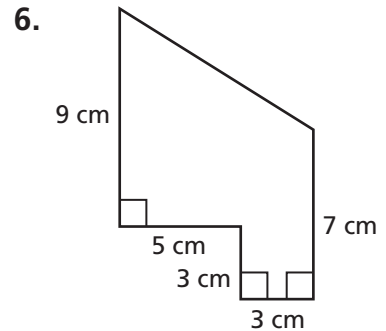
Find the area.



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



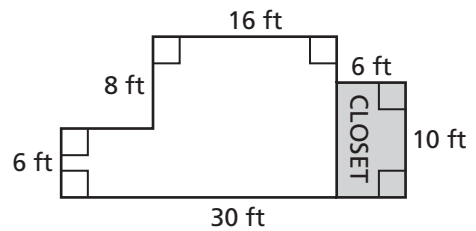
$A = \underline{\hspace{2cm}}$



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

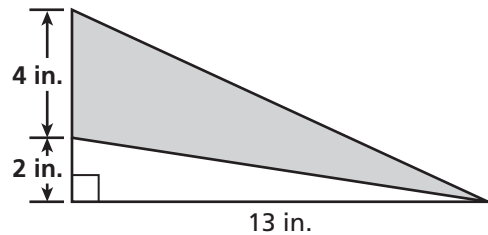
Solve.

7. Alexandra wants to carpet her bedroom. The floor plan of the bedroom is shown at the right. How many square feet of carpet are needed to cover the floor of the bedroom including the closet?



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8. **Stretch Your Thinking** Find the area of the shaded part of the figure. Describe your method.



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# Homework

1. Plot these points on the coordinate plane at the right:  $A(1,6)$ ,  $B(1,10)$ . Plot point  $C$  to make a right triangle with base  $BC$  measuring 3 units long. What ordered pair locates point  $C$ ?

\_\_\_\_\_

2. Draw line segments to form triangle  $ABC$ . Segment  $AC$  measures 5 units. Find the perimeter and area of triangle  $ABC$ .

$P =$  \_\_\_\_\_  $A =$  \_\_\_\_\_

3. Plot these ordered pairs:  $D(2,2)$ ,  $E(5,6)$ ,  $F(11,6)$ . Plot point  $G$ , so polygon  $DEFG$  is a parallelogram. What ordered pair locates point  $G$ ?

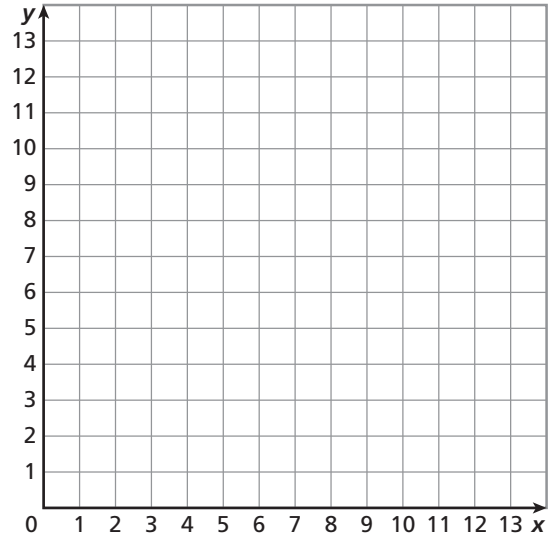
\_\_\_\_\_

5. A tile installer is planning how many blue and white tiles are needed to tile a floor. Each tile is 6 in. high and 4 in. wide. Every other tile will be blue. Each unit on the grid represents 1 in. The bottom left corner of the first blue tile is at  $(0, 0)$ . How many blue tiles will there be in a section 24 in. long and 24 in. wide? Explain.

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

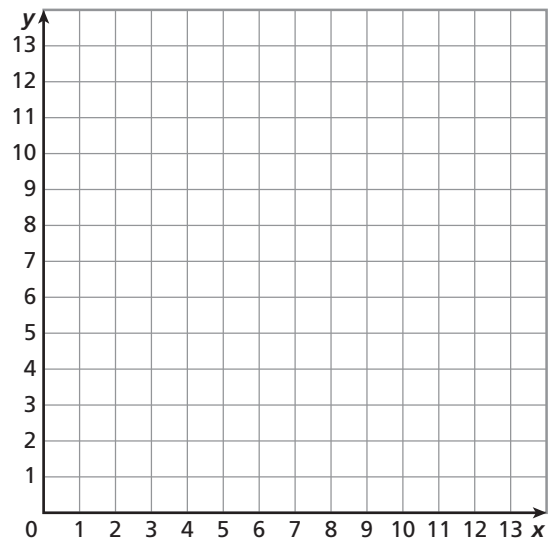
6. An archaeologist roped off a rectangular excavation site that is located on a coordinate grid. The vertices of the site are  $(2,5)$ ,  $(2,11)$ ,  $(12,11)$ , and  $(12,5)$ . If the units are in meters, what is the area of the site?

$A =$  \_\_\_\_\_



4. Draw line segments to form parallelogram  $DEFG$ . Segment  $DE$  is 5 units long. Find the perimeter and area of parallelogram  $DEFG$ .

$P =$  \_\_\_\_\_  $A =$  \_\_\_\_\_



# Remembering

Solve.

1. What is the basic ratio of ounces of peanuts to ounces of raisins for a mixture of 24 ounces of peanuts and 16 ounces of raisins?

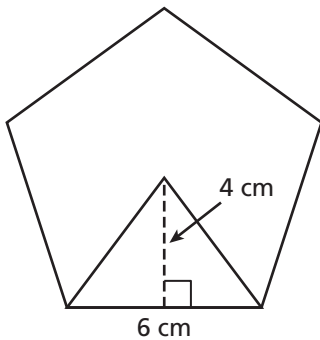
\_\_\_\_\_

2. The basic ratio of blue to red for Ben's favorite purple paint is 4:7. How many quarts of blue paint should be mixed with 21 quarts of red paint to get the right purple?

\_\_\_\_\_

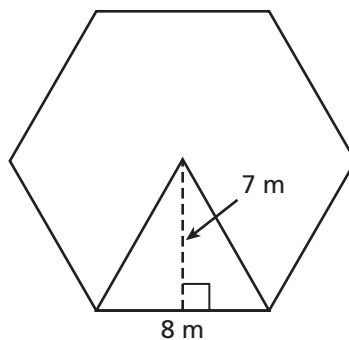
Find the area of each regular polygon.

3.



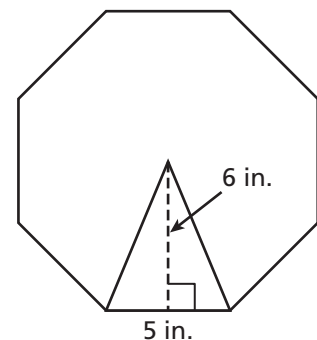
$$A = \underline{\hspace{2cm}}$$

4.



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

5.



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

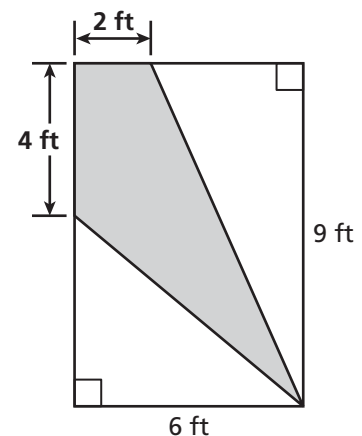
6. **Stretch Your Thinking** Find the area of the shaded part of the figure. Describe your method.

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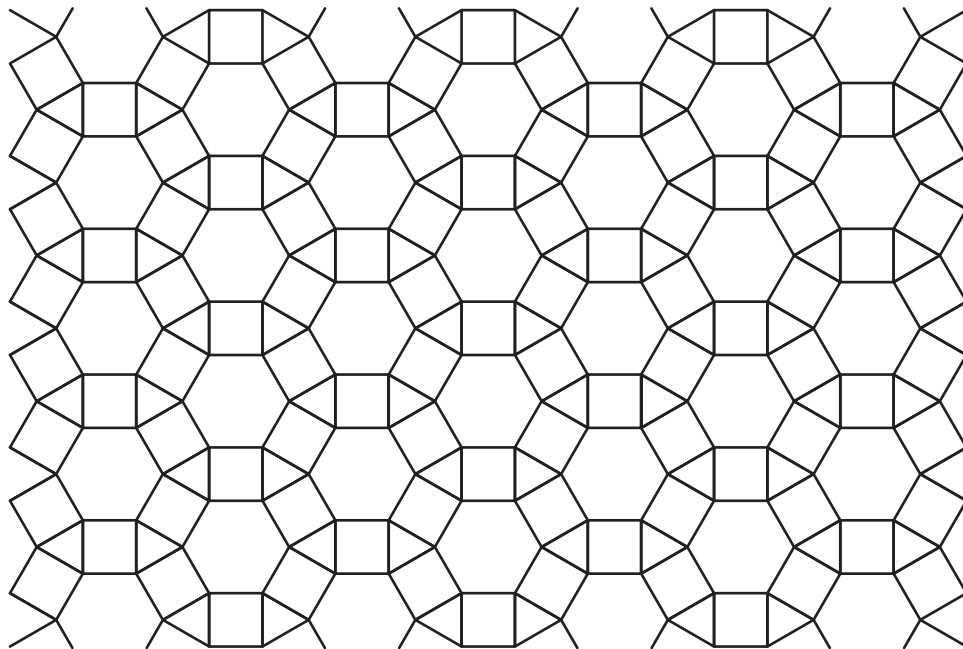
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# Homework

All figures in the tessellation below are regular figures.  
Use a pattern to color this tessellation.



1. Describe the pattern you used to color the tessellation.

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2. Does your colored tessellation have a line of symmetry?  
That is, can you find a line to fold it on so all the shapes  
match exactly? Do the colors match when you fold it on  
that line?

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3. Choose a color in your tessellation. Estimate the area  
covered by that color in  $\text{cm}^2$ .

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# Remembering

Solve.

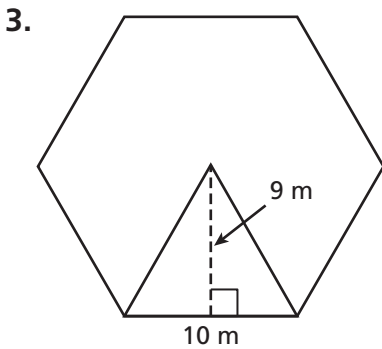
1. Jane makes a citrus salad. She uses 3 oranges for every 2 grapefruit. If she uses 12 grapefruit to make an extra large salad, how many oranges will she use?

\_\_\_\_\_

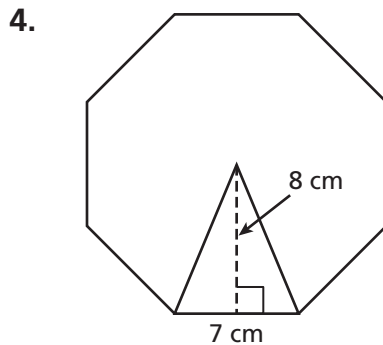
2. The ratio of students who walked to school today to students who took the bus was 5:7. If 14 students took the bus today, how many students walked?

\_\_\_\_\_

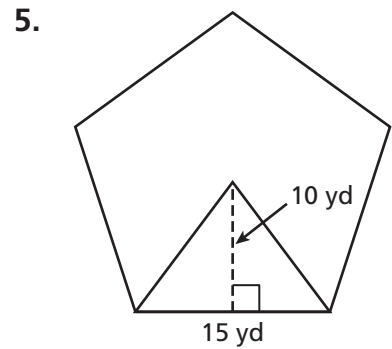
Find the area of each regular polygon.



A = \_\_\_\_\_



A = \_\_\_\_\_



A = \_\_\_\_\_

6. **Stretch Your Thinking** Find the area of the shaded part of the figure. Describe your method.

\_\_\_\_\_

\_\_\_\_\_

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\_\_\_\_\_

