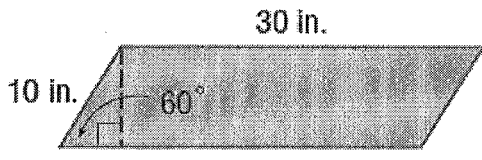
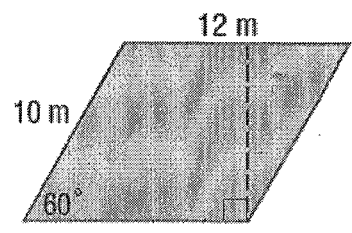


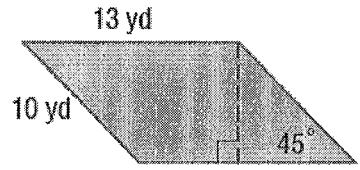
ASSIGNMENT

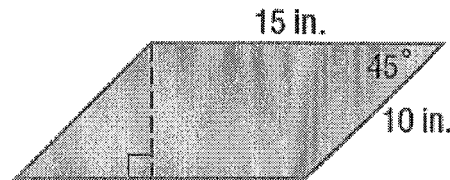
Include units in all answers.

For #1-4, find the perimeter and area of each parallelogram. Round values to the nearest tenth.

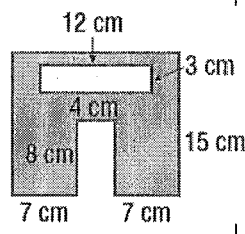
1. 
Perimeter = 80 in. Area = 259.8 in²

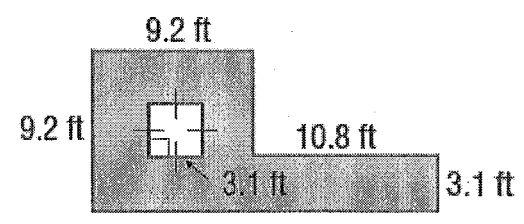
2. 
Perimeter = 44 m. Area = 103.9 m²

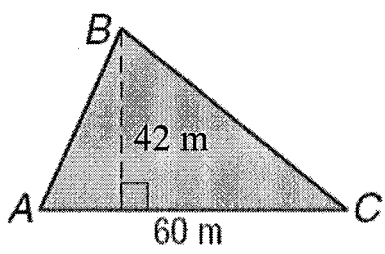
3. 
Perimeter = 46 yd. Area = 91.9 yd²

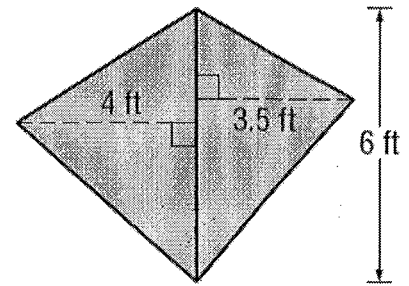
4. 
Perimeter = 50 in. Area = 106.1 in²

For #5-8, find the area of each shaded figure. Round values to the nearest tenth.

5. 
Area = 202 cm²

6. 
Area = 108.5 ft²

7. 
Area = 1260 m²

8. 
Area = 22.5 ft²

9. The Warners are planning to re-carpet part of the first floor of their house. Find the total area of the living room, den, and hall.

Area of Living Room:

$$195 \text{ ft}^2$$

Area of Den:

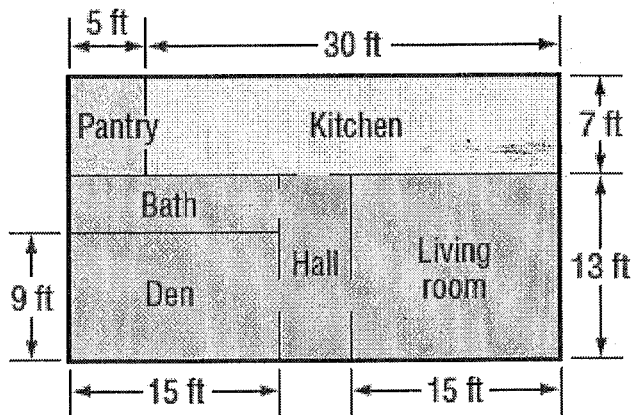
$$135 \text{ ft}^2$$

Area of Hall:

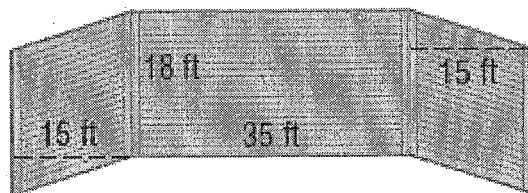
$$65 \text{ ft}^2$$

Total Area:

$$395 \text{ ft}^2$$



10. Mr. Kang is planning to stain his deck. To know how much stain to buy, he needs to find the area of the deck. Find the area.



$$\text{Total area} = \underline{1170 \text{ ft}^2}$$

11. A car has a length of 8 feet and a width of 4.8 feet. If the width of a model of the car is 6 inches, what is the length of the model?

$$\text{length} = \underline{10 \text{ in.}}$$

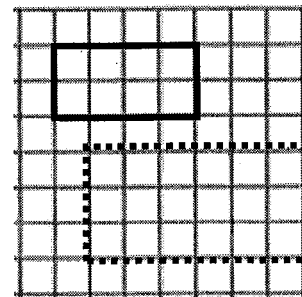
12. Determine whether the dilation shown is an enlargement, a reduction, or a congruence transformation. Then determine the scale factor. The dashed figure is the dilation image.

Type of dilation:

enlargement

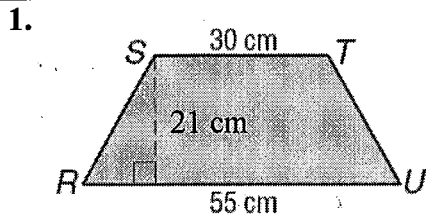
Scale factor: 1.5

or
 $\frac{3}{2}$

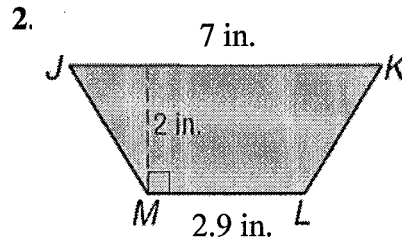


ASSIGNMENT

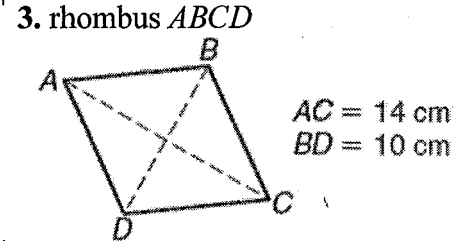
For #1-5, find the area of each figure. Round values to the nearest tenth.



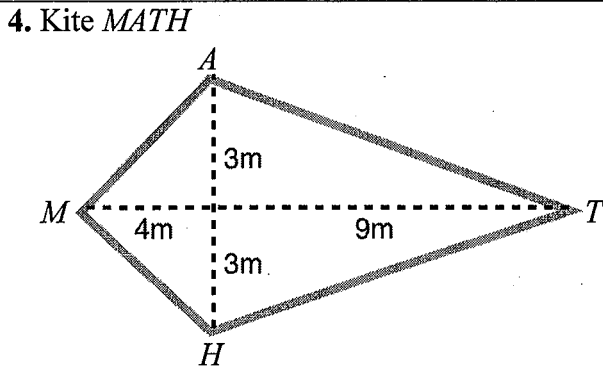
Area = 892.5 cm²



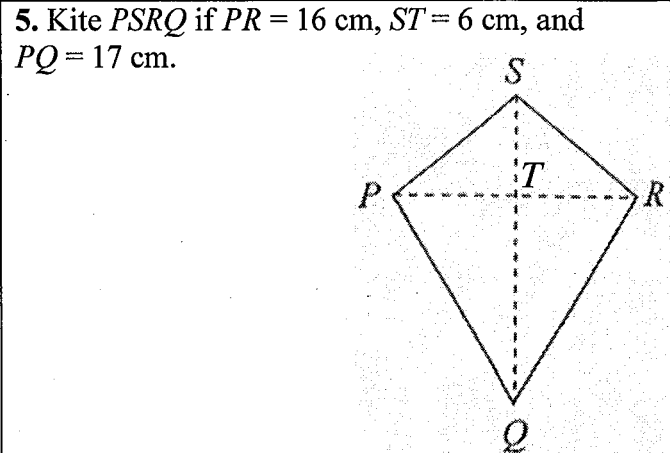
Area = 9.9 in²



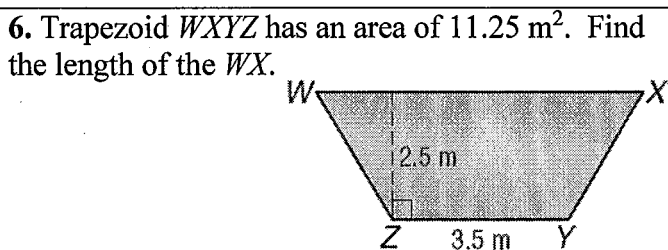
Area = 70 cm²



Area = 39 m²



Area = 168 cm²



WX = 5.5 m

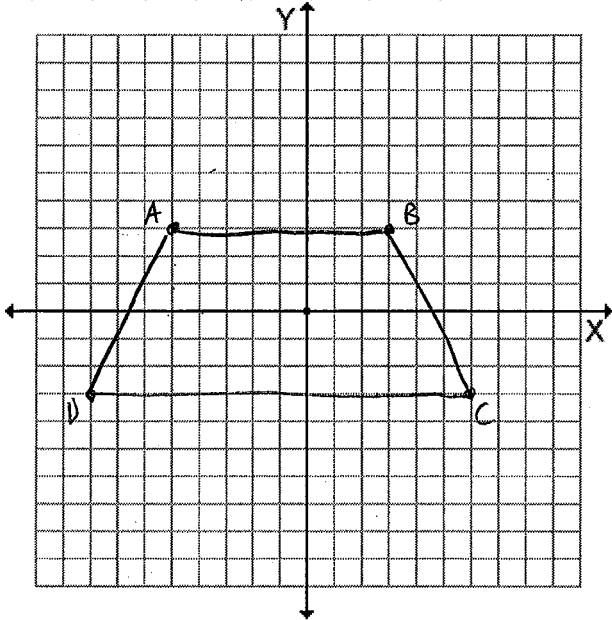
7. A rhombus has an area of 133 cm², and the length of one diagonal is 14 cm. Find the length of the other diagonal.

length = 19 cm

For #8 and 9, find the area of each quadrilateral given the coordinates of the vertices.

8. trapezoid $ABCD$

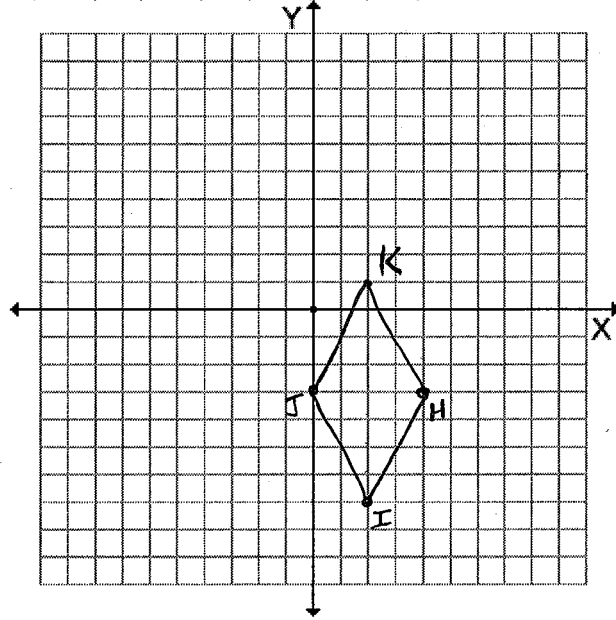
$A(-5, 3), B(3, 3), C(6, -3), D(-8, -3)$



Area = 66 u^2

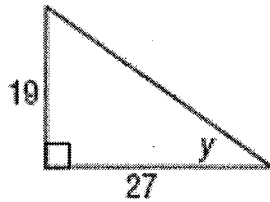
9. rhombus HJK

$H(4, -3), I(2, -7), J(0, -3), K(2, 1)$



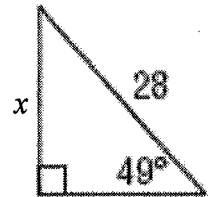
Area = 16 u^2

10. Find the value of y to the nearest hundredth.



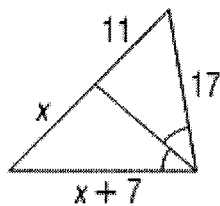
$y \approx \underline{35.13^\circ}$

11. Find the value of x to the nearest hundredth.



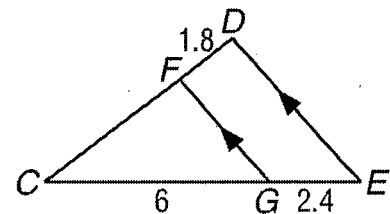
$x \approx \underline{21.13}$

12. Find the value of x .



$x = \underline{12.8}$

13. Find CD .

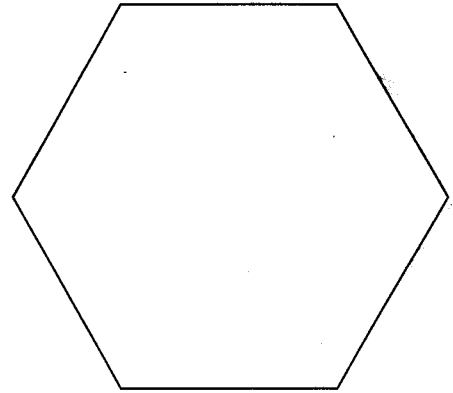


$CD = \underline{6.3}$

ASSIGNMENT

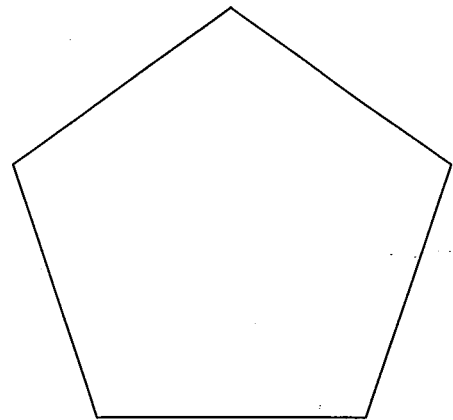
Round values to the nearest hundredth.

1. Find the area of a regular hexagon with a side length of 4 inches.



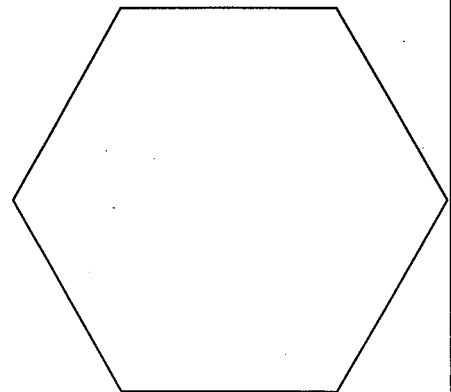
Area = 41.57 in²

2. Find the area of a regular pentagon with a perimeter of 45 feet.



Area = 139.36 ft²

3. Find the area of a regular hexagon with an apothem length of 8.7 cm.

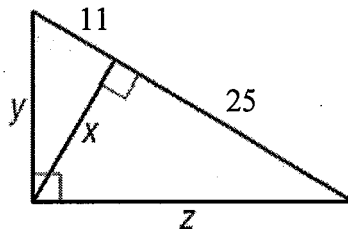


Area = 262.20 cm²

4. Find the area of an equilateral triangle that has a perimeter of 27 meters.

Area = 35.07 m²

5. Find the values of x , y , and z . Write your answers as a decimal rounded to the nearest hundredth.



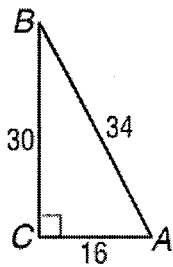
$x \approx \underline{16.58}$ $y \approx \underline{19.90}$ $z \approx \underline{30}$

6. Find each indicated trigonometric ratio. Write the answers as reduced fractions.

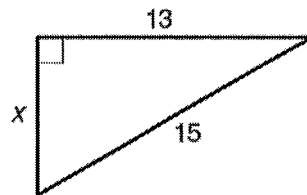
a. $\sin B = \frac{8}{17}$

b. $\cos B = \frac{15}{17}$

c. $\tan B = \frac{8}{15}$



7. Find the value of x to the nearest hundredth.

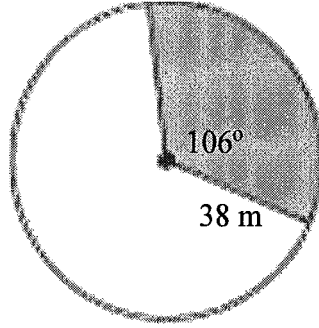


$x \approx \underline{7.48}$

ASSIGNMENT

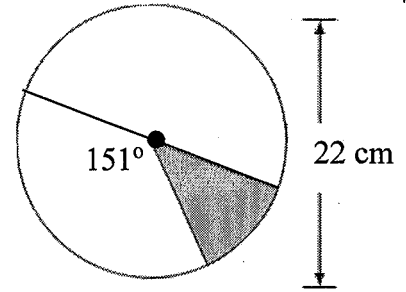
For #1-6, find the area of each shaded region. Round values to the nearest hundredth.

1.



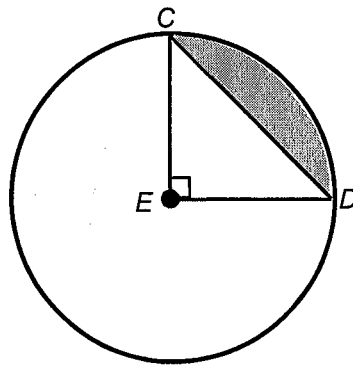
Area = 1335.74m²

2.



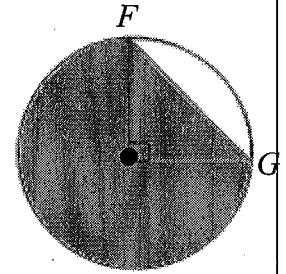
Area = 30.62cm²

3. $CD = 20\sqrt{2}$



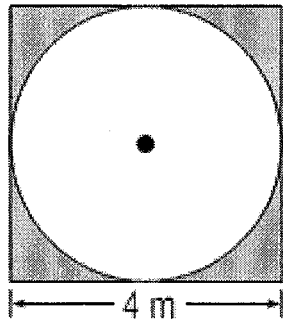
Area = 114.16un²

4. $FG = 17\sqrt{2}$



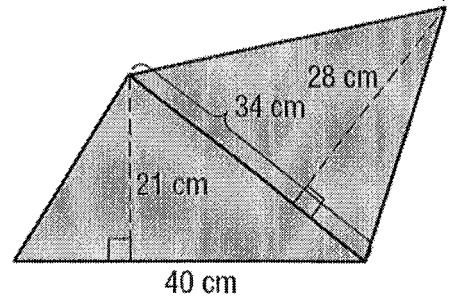
Area = 825.44un²

5.



Area = 3.43m²

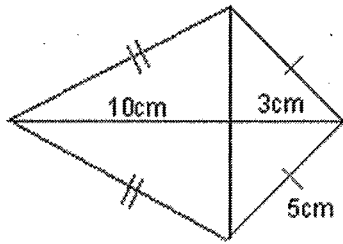
6.



Area = 896cm²

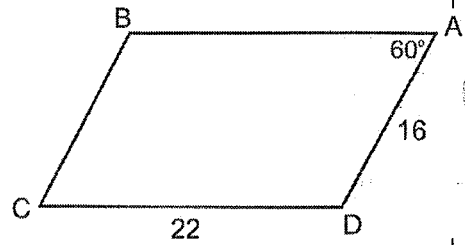
Find the area of each figure. Round values to the nearest hundredth.

7. The figure below is a kite.



Area = 52 cm²

8.



Area = 304.84 cm²

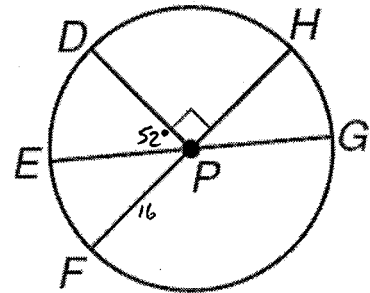
9. In circle P, $m\angle EPD = 52^\circ$ and $FP = 16$ cm. Find the indicated values.

a. $m\widehat{EH} = \underline{142^\circ}$

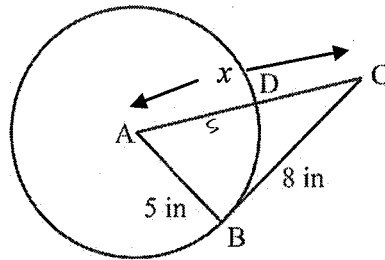
b. $m\widehat{DGE} = \underline{308^\circ}$

c. length of $\widehat{EH} = \underline{39.7 \text{ cm}}$

d. length of $\widehat{DGE} = \underline{86.0 \text{ cm}}$

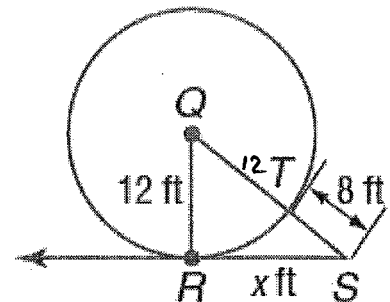


10. Find the value of x if \overline{BC} is tangent to circle A at point B.



$x = \underline{9.43 \text{ in}}$

11. Find the value of x if \overline{RS} is tangent to circle R at point Q.

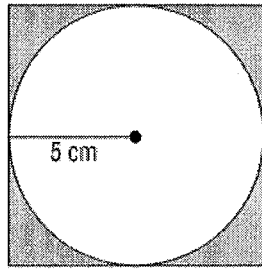


$x = \underline{16 \text{ ft}}$

ASSIGNMENT

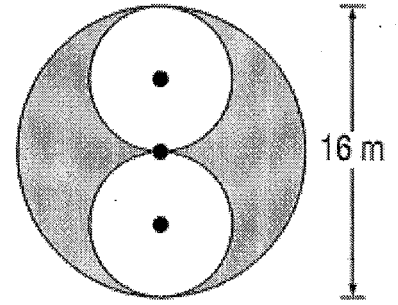
For #1-4, find the area of each shaded figure. Round values to the nearest hundredth.

1.



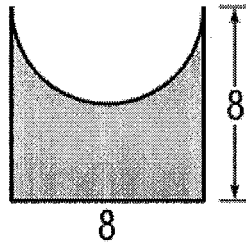
Area = 21.46 cm

2.



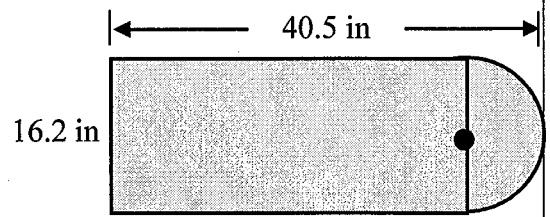
Area = 100.53 m²

3.



Area = 38.87 in²

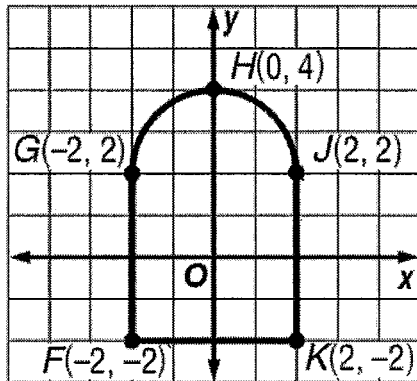
4.



Area = 627.94 in²

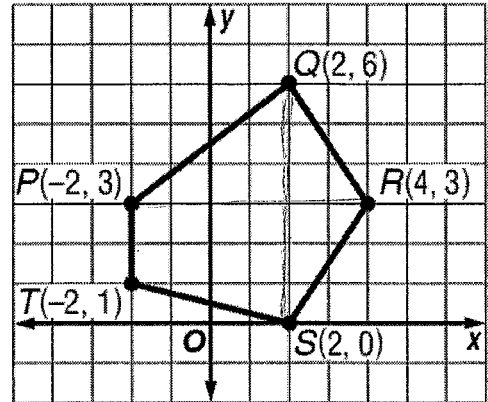
For #5-8, find the area of each figure. Round values to the nearest hundredth.

5.



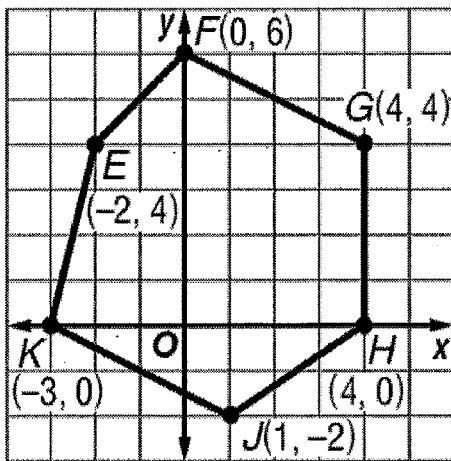
Area = 22.28 in²

6.



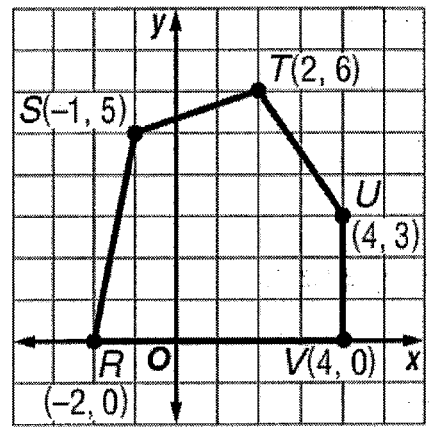
Area = 22 in²

7.

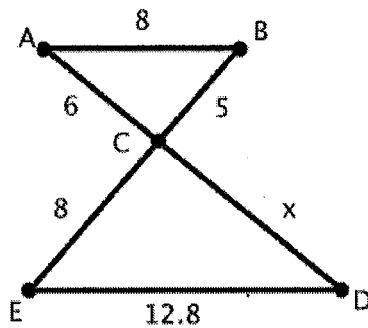


$$\text{Area} = \underline{39 \text{ un}^2}$$

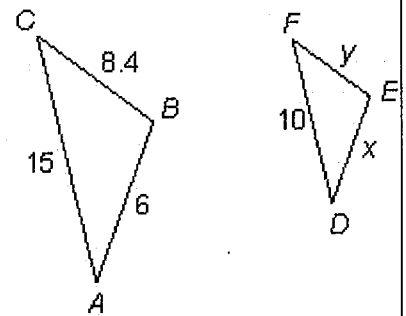
8.



$$\text{Area} = \underline{28 \text{ un}^2}$$

9. $\triangle ACB \sim \triangle DCE$. Find the value of x .

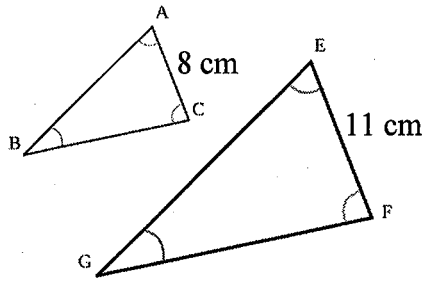
$$x = \underline{9.6}$$

10. $\triangle ABC \sim \triangle DEF$. Find the perimeter of $\triangle DEF$.

$$\text{Perimeter} = \underline{19.6 \text{ un}}$$

ASSIGNMENT

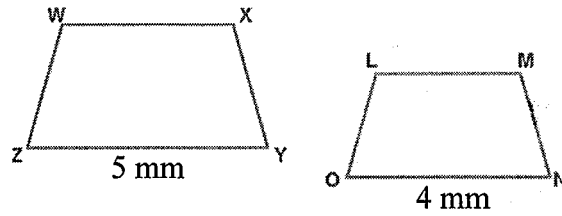
1. $\triangle ABC \sim \triangle EGF$.



- What is the scale factor from $\triangle ABC$ to $\triangle EGF$? $\frac{11}{8}$
- What is the ratio of their perimeters? $\frac{11}{8}$
- What is the ratio of their areas? $\frac{121}{64}$
- If the area of $\triangle ABC$ is 40 cm^2 , what is the area of $\triangle EGF$?

75.625 cm^2

2. Quadrilateral $WXYZ \sim$ quadrilateral $LMNO$.



- What is the scale factor from $WXYZ$ to $LMNO$? $\frac{4}{5}$
- What is the ratio of their perimeters? $\frac{4}{5}$
- What is the ratio of their areas? $\frac{16}{25}$
- If the area of $WXYZ$ is 14 mm^2 , what is the area of $LMNO$?

8.96 mm^2

3. The ratio of the areas of two squares is 16:25.

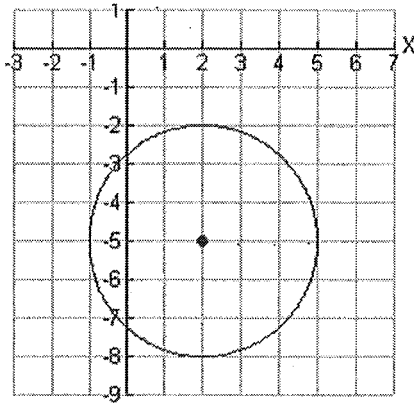
- What is the ratio of their sides? $\frac{4}{5}$
- The larger square has sides of length 10 centimeters. What is the side length of the smaller square?

8 cm

4. Jose bought carpeting for his rectangular living room and for his dining room. His living room is similar to his dining room and 1.5 times as long. If it costs \$1000 for the carpet for the dining room, how much should it have cost to buy the carpet for the living room?

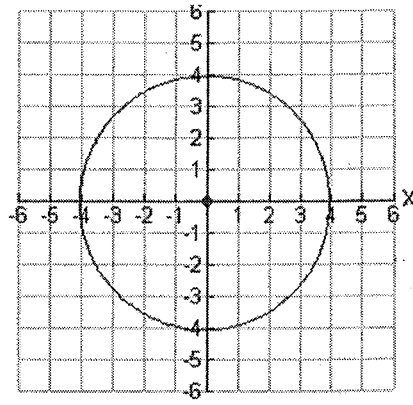
$\$2250$

5. Write the equation of the circle graphed below.



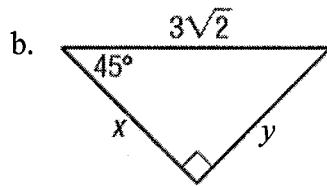
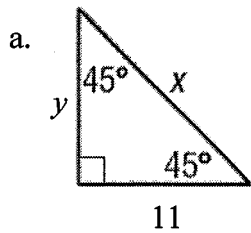
Equation: $(x-2)^2 + (y+5)^2 = 9$

6. Write the equation of the circle graphed below.



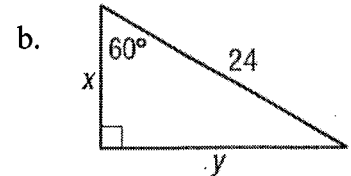
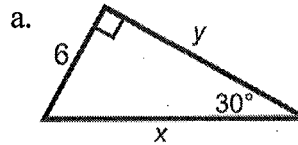
Equation: $x^2 + y^2 = 16$

7. Find the values of x and y in the following triangles.



$x = 11\sqrt{2}$ $y = 11$ $x = 3$ $y = 3$

8. Find the values of x and y in the following triangles.



$x = 12$ $y = 6\sqrt{3}$ $x = 12$ $y = 12\sqrt{3}$

9. A ship is on the surface of the water, and its radar detects a submarine at a distance of 238 feet from the ship. If the angle of depression is 24° , how deep underwater is the submarine?

96.8 ft.

10. A homeowner is to construct a ramp to his front door to make it wheelchair accessible. How long must the ramp be if the door is 4 feet above ground level and the angle of elevation from ground level to the base of the door is 20° ?

≈ 11.7 ft.