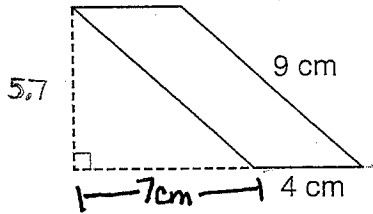


**SECTION 9A** **Ready To Go On? Quiz**

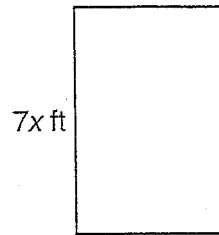
**9-1 Developing Formulas for Triangles and Quadrilaterals**  
Find each measurement.

1. the area of the parallelogram



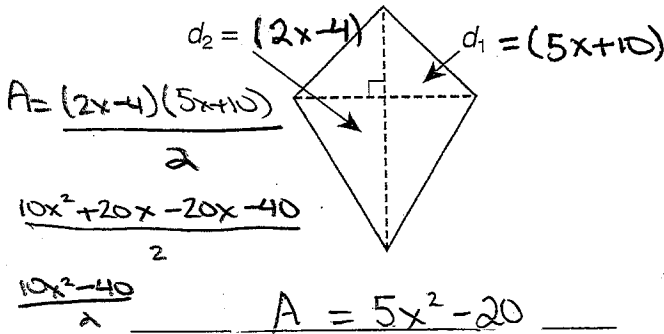
$A = 5.7 \times 4$   
 $A = 22.8 \text{ cm}^2$

2. the base of the rectangle, in which  $A = (14x^2 + 35x) \text{ ft}^2$



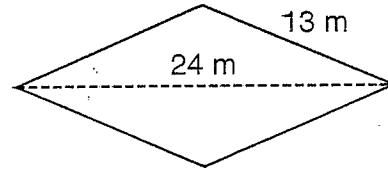
$(2x + 5) \text{ ft}$

3. the area of the kite



$A = 5x^2 - 20$

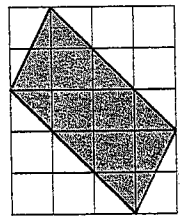
4. the area of the rhombus



$A = 120 \text{ m}^2$

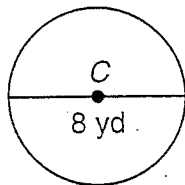
5. Part of a stained glass window is shown at the right. Each square in the grid is 1 in. long. Find the perimeter and area of the dark gray parallelogram.

$P = (6\sqrt{2} + 2\sqrt{5}) \text{ in}$   
 $A = 9 \text{ in}^2$



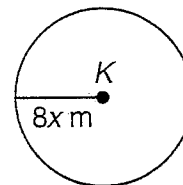
**9-2 Developing Formulas for Circles and Regular Polygons**  
Find each measurement. Round to the nearest tenth.

6. the circumference of  $\odot C$  in terms of  $\pi$



$C = (8\pi) \text{ yd}$

7. the area of  $\odot K$  in terms of  $\pi$



$A = (64\pi x^2) \text{ m}^2$

**SECTION 9A** **Ready To Go On? Quiz** continued

Find the area of each regular polygon. Round to the nearest tenth.

8. a regular hexagon with side length 8 cm

9. a regular pentagon with apothem 10 m

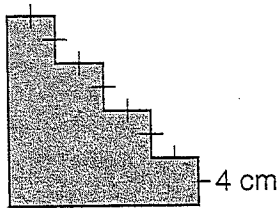
$A = 96\sqrt{3} \text{ cm}^2$

$A = 363.3 \text{ m}^2$

**9-3 Composite Figures**

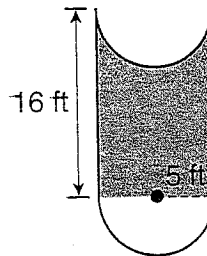
Find the shaded area. Round to the nearest tenth, if necessary.

10.



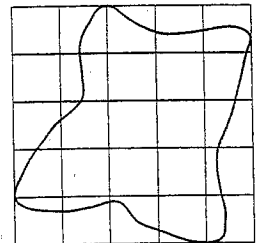
$A = 16.0 \text{ cm}^2$

11.



$A = 40.7 \text{ ft}^2$

12. Joel is fertilizing an irregularly shaped garden, as shown. The grid has squares with side lengths of 1 m. Estimate the area of the garden. Given that fertilizer cost \$2.99 per square meter, find the cost of the fertilizer.



$A \approx 14.5 \text{ m}^2$

fertilizer cost = \$43.35

**SECTION 9B**

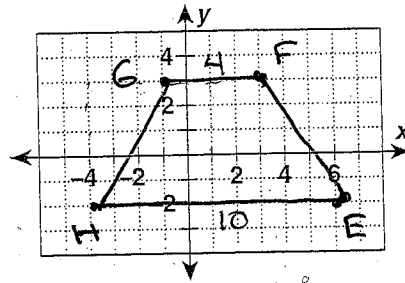
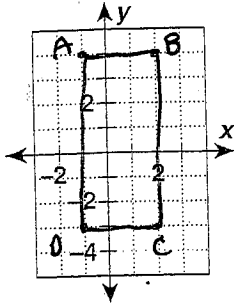
**Ready To Go On? Quiz**

**9-4 Perimeter and Area in the Coordinate Plane**

Draw and classify the polygon with the given vertices. Find the perimeter and area of the polygon.

1.  $A(-1, 4), B(2, 4), C(2, -3), D(-1, -3)$

2.  $E(6, -2), F(3, 3), G(-1, 3), H(-4, -2)$



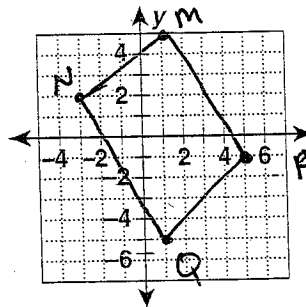
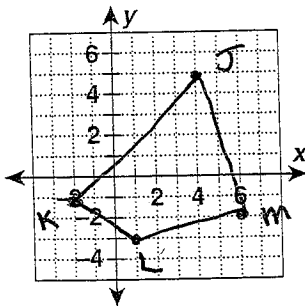
Rectangle  $A = 21u^2$   $P = 20u$

Isosceles Trapezoid  $A = 35u^2$   $P = 14 + 2\sqrt{34}u$

Find the area of each polygon with the given vertices.

3.  $J(4, 5), K(-2, -1), L(1, -3), M(6, -2)$

4.  $N(-3, 2), M(1, 5), P(5, -1), Q(1, -5)$



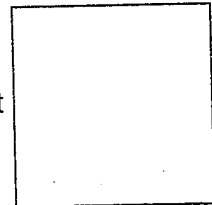
$A = 33.5 u^2$

$A = 40 u^2$

**9-5 Effects of Changing Dimensions Proportionally**

Describe the effect of each change on the perimeter and area of the given figure.

5. The side length of the square is doubled. Perimeter is multiplied by 2. The area is multiplied by 4. 9 ft



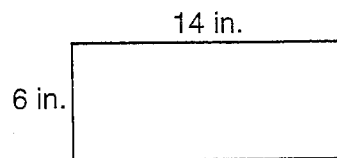
6. The diagonals of a rhombus in which  $d_1 = 8$  m and  $d_2 = 7$  m are both multiplied by  $\frac{1}{2}$ .

The Perimeter is multiplied by  $\frac{1}{2}$ . Area is multiplied by  $\frac{1}{4}$ .

**SECTION 9B** **Ready To Go On? Quiz** continued

7. The base and height of the rectangle are both tripled.

Perimeter is multiplied by 3.  
Area is multiplied by 9.



8. The base and the height of a right triangle with base 12 cm and height 18 cm are multiplied by  $\frac{1}{3}$ .

Perimeter is multiplied by  $\frac{1}{3}$ . Area is multiplied by  $\frac{1}{9}$ .

9. A square has vertices  $(-4, -1)$ ,  $(1, -1)$ ,  $(1, 4)$ , and  $(-4, 4)$ . If you multiply the area by 9, what happens to the side length? \_\_\_\_\_

The side length is multiplied by 3.

10. A sports photographer sells team pictures. The cost of each picture is based on its area. Wallet-sized pictures measure 4 cm by 6 cm and cost \$1.39 each. The photographer sells a larger picture that is three times the length and three times the width of the wallet-sized picture. How much does the larger picture cost?

\$ 12.51

**9-4 Geometric Probability**

Use the spinner to find the probability of each event.

11. the pointer landing in the gray or white region  $\frac{23}{36}$

12. the pointer landing in the striped region  $\frac{1}{4}$

13. the pointer not landing in the dotted region  $\frac{8}{9}$

14. the pointer landing in the dotted or white region  $\frac{29}{72}$

15. A television station plays 14 commercials every half hour. Each commercial is 30 seconds long. If you turn on the TV at a random time, find the probability that a commercial will be playing.

$\frac{7}{30} \approx 0.23$

