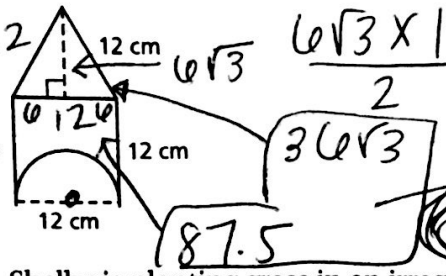
Key

9-3 Composite Figures

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

10.



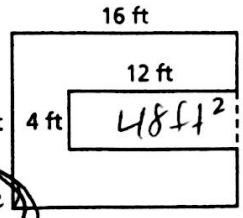
$6\sqrt{3} \times 12 = 36\sqrt{3}$

$\frac{36\sqrt{3}}{2} = 87.5$

$87.5 + 56.5 = 144$

$\frac{\pi}{2} = 56.5$

11.

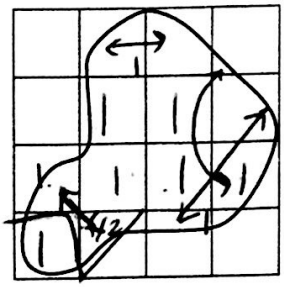


$16 \times 12 = 192$

$192 - 48 = 144 ft^2$

together $149.85 cm^2$

12. Shelby is planting grass in an irregularly shaped garden as shown. The grid has squares with side lengths of 1 yd. Estimate the area of the garden. Given that grass cost $6.50 per square yard, find the cost of the grass.



≈ 9 squares

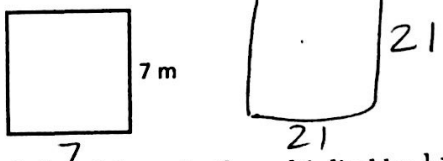
9 square yards

$6.50 \times 9 = \$58.5$

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 tripled.

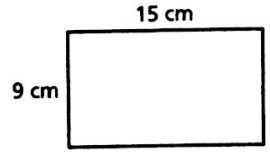


P: × 3
A: × 9

6. The diagonals of a rhombus in which $d_1 = 3$ ft and $d_2 = 9$ ft are both multiplied by $\frac{1}{3}$.

P: × 1/3
A: × 1/9

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



P: × 2
A: × 4

8. The base and height of a right triangle with base 15 in. and height 8 in. are multiplied by $\frac{1}{3}$.

A:
P:

9. A square has vertices (−1, 2), (3, 2), (3, −2), and (−1, −2). If you quadruple the area, what happens to the side length? side lengths × 2

10. A restaurant sells pancakes in two sizes, silver dollar and regular. The silver-dollar pancakes have a 4-inch diameter and require $\frac{1}{8}$ cup of batter per pancake. The diameter of a regular pancake is 2.5 times the diameter of a silver-dollar pancake. About how much batter is required to make a regular pancake?

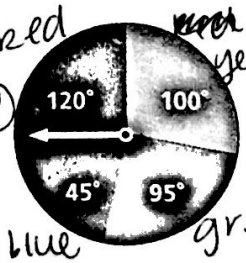
6.25

$(2.5)^2 = 6.25$

1/8 cup × 6.25 = 25/32 cup

9-6 Geometric Probability

Use the spinner to find the probability of each event.



11. the pointer landing on red 120/360 = 1/3

12. the pointer landing on red or yellow 220/360 = 11/18

13. the pointer not landing on green 53/72

14. the pointer landing on yellow or blue 29/72

145/360 =

15. A radio station plays 12 commercials per hour. Each commercial is 1 minute long. If you turn on the radio at a random time, find the probability that a commercial will be playing.

12/60 = .2 or 1/5