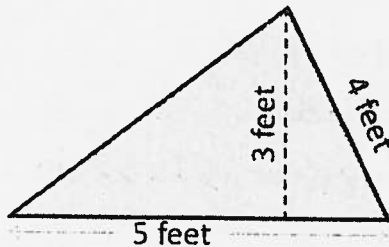


Name: Key

Chapter 7 Study Guide

1. Find the area of the triangle. Show your work.



$$A = \frac{1}{2} \cdot 5 \cdot 3$$

$$A = 7.5 \text{ ft}^2$$

2. Bill invested \$1,250 dollars into a certificate of deposit (CD). The value of the CD will grow by 3.1% in one year. How much will Bill earn in one year? Show work.

$$1250 \cdot 0.031 = \$38.75$$

3. A car is worth \$23,000, after one year the value of the car depreciates by 8%. What is the value of the car after one year?

$$23,000 \cdot .08 = 1840$$

$$23,000 - 1840 = \$21,160$$

In problems 4 and 5, write your answer as a mixed number in lowest terms.

$$4. \frac{11}{1} \times \frac{4}{5} = \frac{44}{5} = 8\frac{4}{5}$$

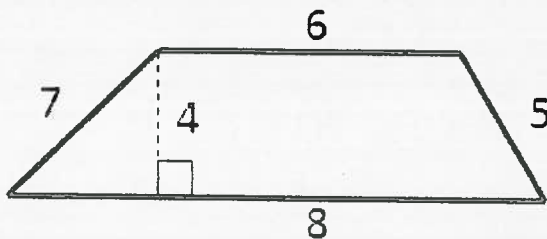
$$5. 1\frac{3}{5} \times 3\frac{2}{3} \quad \text{change to improper} \\ \frac{8}{5} \cdot \frac{11}{3} = \frac{88}{15} = 5\frac{13}{15}$$

6. The radius of a circle is 12 meters. Find the area of the circle. Show work.

$$A = \pi r^2$$

$$A = \pi \cdot 12^2 = 144\pi \approx 452.39 \text{ m}^2$$

7. Find the area of the trapezoid below.



$$A = \frac{1}{2} (b_1 + b_2) \cdot h$$

$$A = \frac{1}{2} (8 + 6) \cdot 4$$

$$A = \frac{1}{2} (14) 4$$

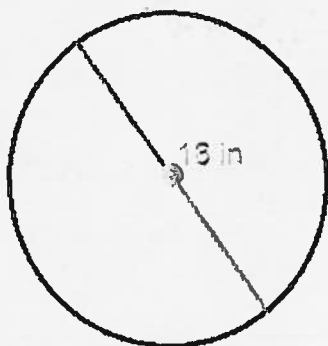
$$A = 28 \text{ units}^2$$

8. Use the distributive property to rewrite the expression.

$$\frac{5}{2} \times \left(\frac{4}{5} + x \right) = \frac{5}{2} \cdot \frac{4}{5} + \frac{5}{2}x$$

$$2 + \frac{5}{2}x$$

9. Find the circumference and area of the circle. Show all work.



$$C = \pi \cdot d$$

$$C = 18\pi \approx 56.55 \text{ in}$$

$$A = \pi r^2$$

$$A = \pi \cdot 9^2 = 81\pi \approx 254.47 \text{ in}^2$$

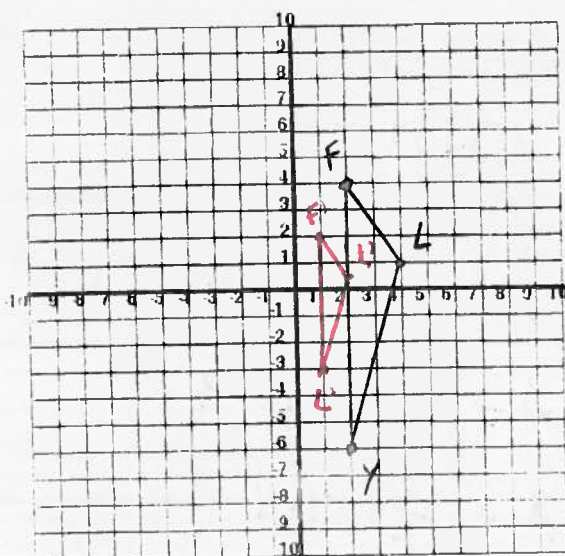
10. A circular dart board has a diameter of 451 mm. The board is divided into 20 equally sized pieces. Find the width of each edge of the dart board. Round your answer to the nearest tenth of a millimeter.

Circumference

$$C = \pi \cdot d$$

$$C = 451\pi \approx 1416.86 \div 20 = 70.84 \text{ mm} \quad 70.8 \text{ mm}$$

11. Draw the image of FLY under a size change of magnitude $\frac{1}{2}$. Give the coordinates of the image and the preimage.



$$F = (2, 4)$$

$$L = (4, 1)$$

$$Y = (2, -6)$$

$$F' = (1, 2)$$

$$L' = (2, \frac{1}{2})$$

$$Y' = (1, -3)$$