

3.1 Area and Perimeter Notes

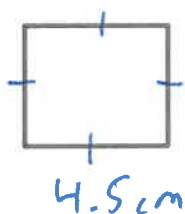
Perimeter: the distance around the outside of an object

Area: the space an object or area covers.
measured in square units ex. ft^2



Finding the Perimeter and Area of Simple Shapes. Round to the nearest hundredth.

Ex 1. Squares



$$\text{Perimeter}$$

$$P = s + s + s + s$$

$$P = 4 \times s$$

$$P = 4 \times (4.5 \text{ cm})$$

$$P = 18 \text{ cm}$$

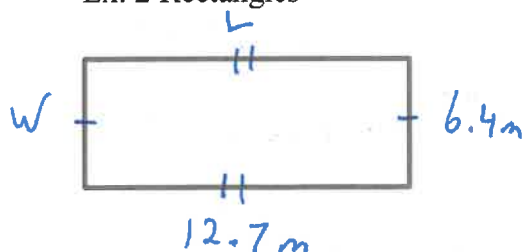
$$\text{Area}$$

$$A = s^2 = s \times s$$

$$A = (4.5)^2$$

$$A = 20.25 \text{ cm}^2$$

Ex. 2 Rectangles



$$P = 2L + 2w$$

$$P = 2(12.7 \text{ m}) + 2(6.4 \text{ m})$$

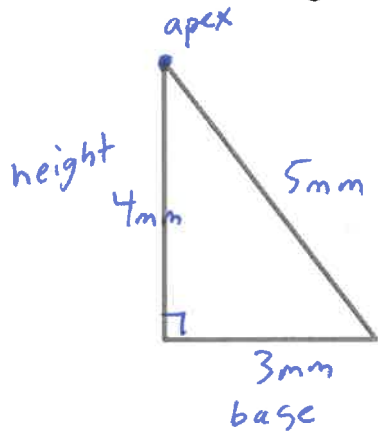
$$P = 38.2 \text{ m}$$

$$A = L \times w$$

$$A = (12.7 \text{ m}) \times (6.4 \text{ m})$$

$$A = 81.28 \text{ m}^2$$

Ex 3. Triangles



$$P = s + s + s$$

$$P = 3 + 4 + 5$$

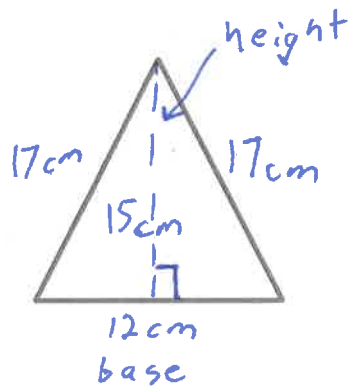
$$P = 12 \text{ mm}$$

$$A = \frac{b \times h}{2}$$

$$A = \frac{3 \text{ mm} \times 4 \text{ mm}}{2}$$

$$A = \frac{12 \text{ mm}^2}{2}$$

$$A = 6 \text{ mm}^2$$

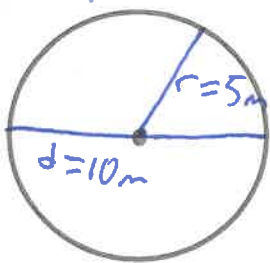


$$A = \frac{b \times h}{2}$$

$$A = \frac{12 \text{ cm} \times 15 \text{ cm}}{2}$$

$$A = 90 \text{ cm}^2$$

Ex 4. Circles



d = diameter
 r = radius

$$d = 2 \times r$$

$$r = d \div 2$$

Circumference (C)

$$C = 2\pi r \text{ or } \pi d$$

$$C = \pi \times 10$$

$$C = 3.14 \times 10$$

$$C = 31.4 \text{ m}$$

$$A = \pi \times r^2$$

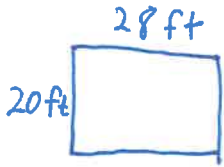
$$A = 3.14 \times (5)^2$$

$$A = 3.14 \times 25 \text{ m}^2$$

$$A = 78.54 \text{ m}^2$$

Word Problems

1. Ina is laying turf in a yard measuring 28ft. by 20 ft. What is the yard's area in square feet?

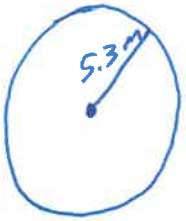


$$A = L \times W$$

$$A = (28 \text{ ft}) \times (20 \text{ ft})$$

$$A = 560 \text{ ft}^2$$

2. What is the circumference of a circular fountain if its radius is 5.3m?

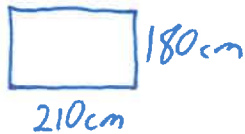


$$C = 2 \pi r$$

$$C = 2 \times \pi \times (5.3 \text{ m})$$

$$C = 33.30 \text{ m}$$

- 3 a. Shelby is edging a tablecloth with lace. The tablecloth is 210 cm by 180 cm. How much lace does she need?



$$\cancel{A = L \times W}$$

$$P = 2L \times 2W$$

$$P = 2(210) + 2(180)$$

$$P = 780 \text{ cm}$$

- b. If lace is \$2.75 per meter, what will it cost her to edge the tablecloth?

$$780 \text{ cm} \div 100 = 7.8 \text{ m}$$

$$\frac{\$2.75}{1 \text{ m}} = \frac{x}{7.8 \text{ m}} \quad x = \$21.45$$

