

8.1 Areas of Special Quadrilaterals Homework Day 1

Name Key

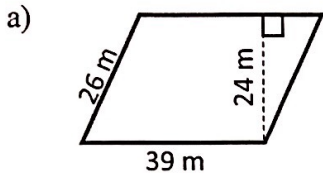
Geometry 3313

Date _____ Period _____

Learning Targets

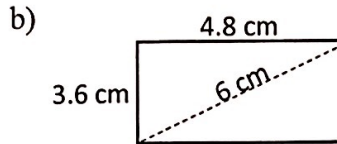
- a. I can apply the area formula(s) of RECTANGLES to solve problems.
- b. I can apply the area formula(s) of PARALLELOGRAMS to solve problems.

1. Find the area and perimeter of the parallelograms. 8.1a, 8.1b



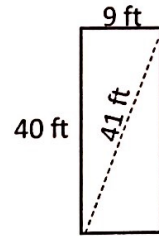
$$A = 39(24) = 936 \text{ m}^2$$

$$P = 2(39) + 2(26) = 130 \text{ m}$$



$$A = 3.6(4.8) = 17.28 \text{ cm}^2$$

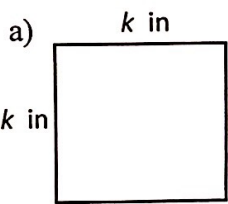
$$P = 2(3.6) + 2(4.8) = 16.8 \text{ cm}$$



$$A = 9(40) = 360 \text{ ft}^2$$

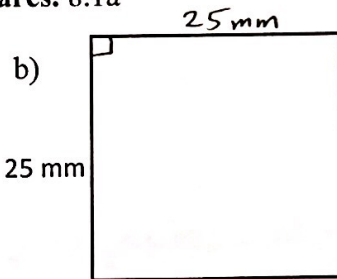
$$P = 2(9) + 2(40) = 98 \text{ ft}$$

2. Find the area and perimeter of the squares. 8.1a



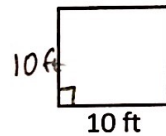
$$A = k^2 \text{ in}^2$$

$$P = 4k \text{ in}$$



$$A = 625 \text{ mm}^2$$

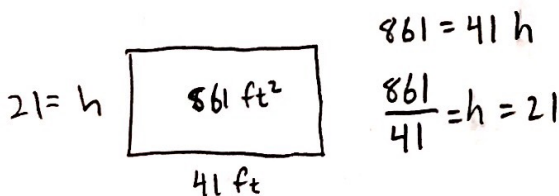
$$P = 100 \text{ mm}$$



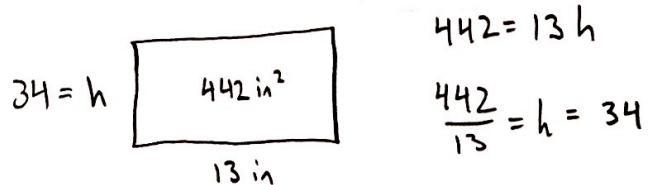
$$A = 100 \text{ ft}^2$$

$$P = 40 \text{ ft}$$

3. The base of a rectangle is 41 feet long. The area of the rectangle is 861 square feet. What is the perimeter of the rectangle? 8.1a



4. The base of a rectangle is 13 inches long. The area of the rectangle is 442 square inches. What is the perimeter of the rectangle? 8.1a

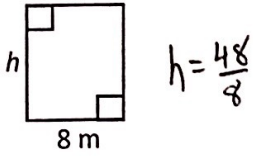


Perimeter = 124 ft

Perimeter = 114 in

Find the missing information for each parallelogram. 8.1a, 8.1b

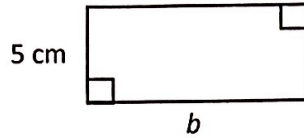
5. Rectangle Area = 48 m^2



$$h = \underline{6 \text{ m}}$$

$$P = \underline{28 \text{ m}}$$

6. Rectangle Area = 100 cm^2

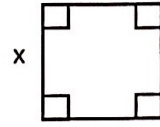


$$b = \underline{\frac{100}{5}}$$

$$b = \underline{20 \text{ cm}}$$

$$P = \underline{50 \text{ cm}}$$

7. Square Area = 144 mi^2

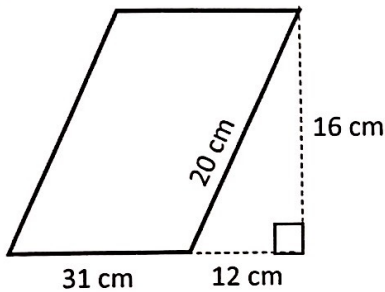


$$x = \underline{\sqrt{144}}$$

$$x = \underline{12 \text{ mi}}$$

$$P = \underline{48 \text{ mi}}$$

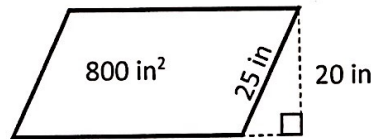
8.



$$P = \underline{102 \text{ cm}}$$

$$A = \underline{496 \text{ cm}^2}$$

9.



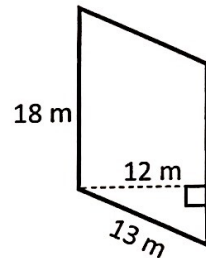
$$b = \underline{\frac{800}{20}}$$

$$b = \underline{40 \text{ in}}$$

$$A = \underline{800 \text{ in}^2}$$

$$P = \underline{130 \text{ in}}$$

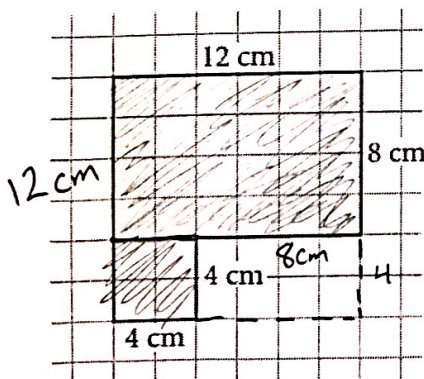
10.



$$P = \underline{62 \text{ m}}$$

$$A = \underline{216 \text{ m}^2}$$

11. Find the area and perimeter of the shaded region 8.1a



Area

Option 1: $\square_{\text{BIG}} = 12 \cdot 8 = 96$

$\square_{\text{small}} = 4 \cdot 4 = 16$

$$\underline{112 \text{ cm}^2}$$

Option 2: Completed \square with bottom right corner missing: $12 \cdot 12 = 144$

Subtract corner: $8 \cdot 4 = 32$

$$\underline{112 \text{ cm}^2}$$

$$\text{Area} = \underline{112 \text{ cm}^2}$$

$$\text{Perimeter} = \underline{48 \text{ cm}}$$

$$12 + 12 + 4 + 4 + 8 + 8$$

$$112 \text{ cm}^2$$