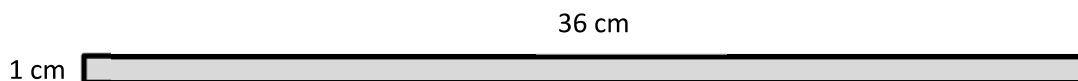


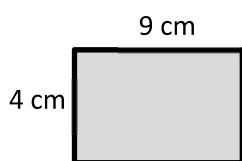
Name _____

Date _____

1. The rectangles below have the same area. Move the () to find the missing side lengths. Then solve.



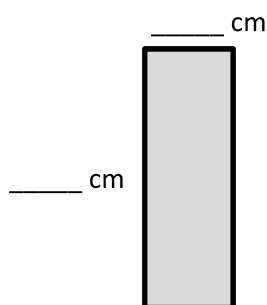
b. Area: $1 \times 36 = \underline{\hspace{2cm}}$ sq cm



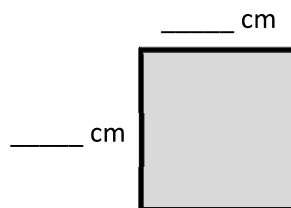
a. Area: $4 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$ sq cm



b. Area: $4 \times 9 = (2 \times 2) \times 9$
 $= 2 \times 2 \times 9$
 $= \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}}$ sq cm



c. Area: $4 \times 9 = 4 \times (3 \times 3)$
 $= 4 \times 3 \times 3$
 $= \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}}$ sq cm

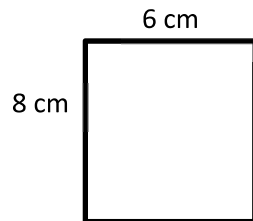


d. Area: $12 \times 3 = (6 \times 2) \times 3$
 $= 6 \times 2 \times 3$
 $= \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}}$ sq cm

2. Does Problem 1 show all the possible whole number side lengths for a rectangle with an area of 36 square centimeters? How do you know?

3.

- a. Find the area of the rectangle below.



- b. Hilda says a 4 cm by 12 cm rectangle has the same area as the rectangle in Part (a). Place () in the equation to find the related fact and solve. Is Hilda correct? Why or why not?

$$4 \times 12 = 4 \times 2 \times 6$$

$$= 4 \times 2 \times 6$$

$$= \underline{\quad} \times \underline{\quad}$$

$$= \underline{\quad} \text{ sq cm}$$

- c. Use the expression 8×6 to find different side lengths for a rectangle that has the same area as the rectangle in Part (a). Show your equations using (). Then estimate to draw the rectangle and label the side lengths.