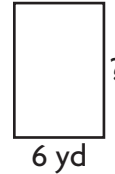


Find Unknown Measures

Fred has 30 yards of fencing to enclose a rectangular vegetable garden. He wants it to be 6 yards wide. How long will his vegetable garden be?



Step 1 Decide whether this problem involves area or perimeter.

Think: The fencing goes *around the outside* of the garden. This is a measure of perimeter.

Step 2 Use a formula for perimeter. The width is 6 yards. The perimeter is 30 yards. The length is unknown.

$$P = (2 \times l) + (2 \times w)$$

$$30 = (2 \times l) + (2 \times 6)$$

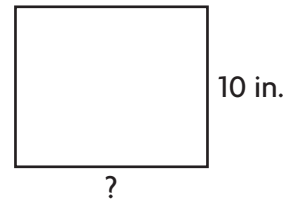
$$30 = (2 \times l) + 12$$

$$18 = 2 \times l, \text{ so the value of } l \text{ is } 9.$$

Step 3 Find the value of l .

The length of Fred's garden will be 9 yards.

Carol has 120 square inches of wood. The piece of wood is rectangular and has a height of 10 inches. How long is the base?



Step 1 Decide whether this problem involves area or perimeter.

Think: *Square inches* is a measure of area.

Step 2 Use a formula for area. The height is 10 inches. The area is 120 square inches. The length is unknown.

$$A = b \times h$$

$$120 = b \times 10$$

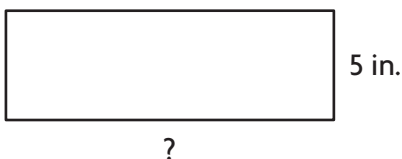
Step 3 Find the value of b .

Since $120 = 12 \times 10$, the value of b is 12.

The base of Carol's piece of wood is 12 inches.

Find the unknown measure.

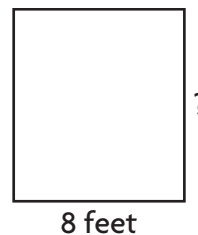
1



Perimeter = 40 inches

width = _____

2



Area = 72 square feet

height = _____