

2.22.16

$$l$$

$$= w + 3$$

First

The length of a rectangle is 3 cm more than the width. If its' perimeter is 78 cm, what is its' area? Put the appropriate markings on the rectangle below.

$$P = 2l + 2w \quad A = l \cdot w$$

$$P = 78 \text{ cm}$$

$$l = \underline{w+3} \quad l = 21 \text{ cm}$$

$$w = \boxed{w = 18 \text{ cm}}$$

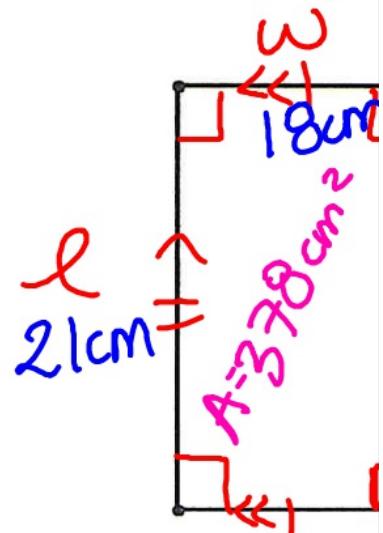
$$78 = 2(w+3) + 2w$$

$$78 = 2w + 6 + 2w$$

$$78 = 4w + 6$$
  
$$-6$$
  
$$72 = 4w$$

$$\frac{72}{4} = 4w$$

$$18 = w$$



$$A = (18)(21)$$

$$A = 378 \text{ cm}^2$$