

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.

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

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

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

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

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

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

$$78 = 4w + 6$$

$$\begin{array}{r} 78 \\ -6 \\ \hline 72 \end{array} \quad \begin{array}{r} 4w \\ -6 \\ \hline 4w \end{array}$$

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

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

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

