

2.17.16

The length of a rectangle is  $\underline{= 2} w$  twice its' width. If its' area is  $288 \text{ cm}^2$ , what is its' perimeter? Put the appropriate markings on the rectangle below.

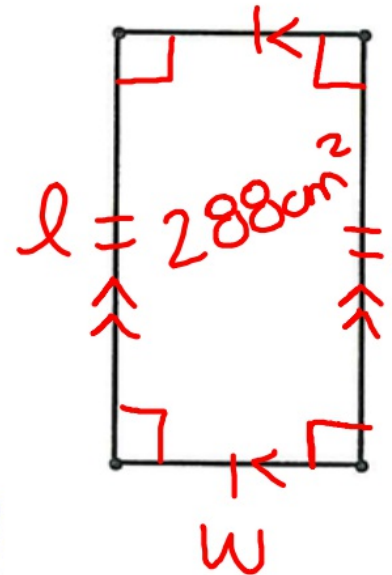
1. What are my formulas for perimeter and area?

2. width =

3. length =

4. Area =

5. Perimeter =



①  $P = 2l + 2w$   $A = l \cdot w$

②  $w = \boxed{12 \text{ cm}}$

③  $l = 2w = 2(12) = \boxed{24 \text{ cm}}$

④  $A = 288 \text{ cm}^2$

$288 = 2w \cdot w$

$\frac{288}{2} = \frac{\cancel{2} w^2}{\cancel{2}}$

$\sqrt{144} = \sqrt{w^2}$

$\boxed{12_{\text{cm}} = w}$

⑤  $P = 2l + 2w$   $P = 2(24) + 2(12)$

$\boxed{P = 72 \text{ cm}}$