Warm-Up

The equation for perimeter of a rectangle is

$P = 2l + 2w$, where P is perimeter, l is length, and w is width.

(a) Solve this equation for w.

① Move terms first!

$P = 2l + 2w$

$-2l \quad -2l$

$P - 2l = 2w$

$\frac{P-2l}{2} = \frac{2w}{2}$

$\frac{P-2l}{2} = w$

(b) What is the width of a rectangle that has a perimeter of 30 in. and a length of 4 in.?

$\frac{P-2l}{2} = \frac{(30)-2(4)}{2} = \frac{30-8}{2}$

$= \frac{22}{2} = 11$

11 inches