

Chapter #7 Systems of Linear Equations

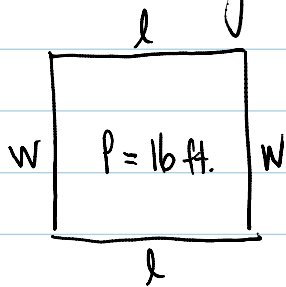
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7.1 Developing Systems of Linear Equations

We can use 2 linear equations to model a situation
↳ together they form a **system of linear equations**
↳ often referred to as a **linear system**

Ex. #1

Use a diagram to model



→ length is 2ft longer than its width.

(a.) create a linear system

$$P = l + l + w + w \quad l = w + 2$$
$$16 = 2l + 2w$$

A linear system that models the situation is!

$$\begin{cases} 2l + 2w = 16 \\ w + 2 = l \end{cases}$$

(b.) length is 5 ft. verify that the perimeter is
width is 3 ft. correct.

$$P = 2(5) + 2(3)$$
$$16 = 10 + 6$$
$$16 = 16 \quad \checkmark$$

pg. 401 #4-9, 12, 13