

**5 - 1**

# **Introduction to Equations**

**equation:** two numbers or expressions  
set equal to each other

True or False?

Ex:  $\begin{array}{r} 2 + 4 \\ \hline 6 \end{array} = \begin{array}{r} 3 + 3 \\ \hline 6 \end{array}$  true

Ex:  $\begin{array}{r} 251 + 37 \\ \hline 288 \end{array} = \begin{array}{r} 245 + 40 \\ \hline 285 \end{array}$  false

**open sentence:** Contains one or more variables

**solution:** value for the variable that makes the equation true

Ex:  $n + 4 = 9$       open

5 is solution

**Tell whether each sentence is true, false, or open.**

**Ex:**  $3(8 - 2) = 20$

false       $3(6) = 20$   
              |  
               $18 = 20$

**Ex:**  $2y - 6 = 10$

open

**Ex:**  $-9 + 5 = 2(7 - 9)$

true       $-4 = 2(-2)$   
              |  
               $-4 = -4$

Ex: Which value (1 or 2) is a solution of the equation  $2x + 5 = 9$ ?

$$2(1) + 5 = 9$$

$$7 \neq 9$$

$$2(2) + 5 = 9$$

$$9 = 9 \quad \checkmark$$

Homework:

p. 210 #16 - 38 even