

**4 - 4**

# **Equations as Relations**

Ex: Find the solution set for  $y = 2x + 3$ , given the replacement set  $\{(-2, -1), (-1, 3), (0, 4), (3, 9)\}$ .

$$-1 = 2(-2) + 3$$

$$-1 = -4 + 3$$

$$-1 = -1$$

$$3 = 2(-1) + 3$$

$$3 = -2 + 3$$

$$3 = 1$$

$$4 = 2(0) + 3$$

$$4 = 0 + 3$$

$$4 = 3$$

$$9 = 2(3) + 3$$

$$9 = 6 + 3$$

$$9 = 9$$

**Ex: Solve the equation  $y = x + 7$  if the domain is  $\{-2, -1, 0, 2, 5\}$ .**

(x)

x	y
-2	5
-1	6
0	7
2	9
5	12

$$y = -2 + 7$$

$$y = -1 + 7$$

$$y = 0 + 7$$

$$y = 2 + 7$$

$$y = 5 + 7$$

**You may need to rearrange the equation first so that it says "y = \_\_\_\_" so that it will be easier.**

**For example, #8 on your WS:**

$$\begin{array}{r} x = y + 2 \\ -2 \quad -2 \\ \hline x - 2 = y \end{array}$$



Homework:

4 - 4 WS

Only the following numbers:

#1, 3, 5, 8, 11, 13, 14