7.4 Writing Equations in Two Variables

EQ: How can you write an equation in two variables?

- ☆ Two variables means two unknowns
- ☆ The solution will be an ordered pair
- ☆ Independent Variable - can change freely
- ☆ Dependent Variable - its value depends on the independent variable
- ☆ Distance Formula

$$d = rt$$

distance = rate (speed) × time

Example 1: Is the ordered pair a solution?

$y = 4x - 3$; $(4, 12)$ (x, y)

plug in x & y →

$12 = 4(4) - 3$

$12 = 16 - 3$

$12 \neq 13$

NO, not a solution

☆ it would be a solution if we got $12 = 12$

Example 2: y is the amount of milk in ounces remaining after you pour x cups.

$y = 128 - 8x$

a) What is the independent/dependent variable?

☆ The number you put in for x will change y.

Independent: x, cups of milk

Dependent: y, oz of milk left

b) How much milk remains after 10 cups?

$y = 128 - 8(10)$

$y = 128 - 80$

$y = 48$

48 oz