

# Today's Plan:

**Learning Target (standard):** I will represent data through equations, tables and graphs. I will interpret the meaning of each of these as they pertain to the situation.

**Students will:** Complete practice problems over previous concepts at the boards, put up homework problems on the board and make necessary corrections to their own work, take notes over new material and complete practice problems over new concepts.

**Teacher will:** Provide practice problems over previous concepts, check homework problems for accuracy and provide students feedback, describe and provide examples of new concepts and assign students assessment problems over new concepts.

**Assessment:** Board work, homework check and homework assignment

**Differentiation:** Students will work at the board, go over and correct homework at their seats, actively engage in lecture over new concepts, practice new concepts with the aid of other students and the teacher and complete homework assignment.

NAME \_\_\_\_\_

## BELL RINGER

1.) Solve  $9 = n + (-2)$ .

$$\begin{array}{r} 9 = n - 2 \\ +2 \quad +2 \\ \hline 11 = n \end{array}$$

2.) Simplify the variable expression  $3(a)(a)(a)$ .

$$3a^3$$

3.) Simplify  $\frac{2a}{8-3}$  for  $a = 3$ .

$$\frac{2 \cdot 3}{8-3} = \frac{6}{5}$$



4

Solve.

$$3x - 4 = 8$$

$$+4 \quad +4$$

$$\frac{3x}{3} = \frac{12}{3}$$

$$x = 4$$

Solve.

$$5x + 10 = 35$$

$$-10 \quad -10$$

$$\frac{5x}{5} = \frac{25}{5}$$

$$x = 5$$

Solve.

$$8x - 3 = 13$$
$$+3 \quad +3$$

$$\frac{8x}{8} = \frac{16}{8}$$

$$x = 2$$

Solve.

$$-16 - x = 20$$
$$+16 \quad +16$$

$$\frac{-x}{-1} = \frac{36}{-1}$$

$$x = -36$$

Solve.

$$\begin{array}{r} -6x + 6 = -24 \\ -6 \quad -6 \end{array}$$

$$\frac{-6x}{-6} = \frac{-30}{-6}$$

$$x = 5$$

Solve.

$$\begin{array}{r} 7x - 49 = 21 \\ +49 \quad +49 \end{array}$$

$$\frac{7x}{7} = \frac{70}{7}$$

$$x = 10$$

Solve.

$$7x - 10 = 32$$

+10   +10

$$\frac{7x}{7} = \frac{42}{7}$$

$$x = 6$$

### Patterns, Equations, & Graphs:

- when two quantities are related, the values of one quantity can be found if you know the other value
- this relationship can be represented through tables, equations, and graphs
- the solution to an equation with two variables  $x$  and  $y$  is any ordered pair  $(x,y)$  that makes the equation true

Is  $(5, 15)$  a solution to the equation  $y = 3x$ ?

$(6, -18)$ ?  $y = 3(6)$   
 $y = 18 \neq -18$  **no**

$(-2, -6)$ ?  $-6 = 3x$   
 $\frac{-6}{3} = \frac{3x}{3}$   $x = -2$  **yes**

$(3, 9)$ ?  $9 = 3(3)$   
 $9 = 9$  **yes**

$(9, 3)$ ?  $y = 3(9)$   
 $y = 27 \neq 3$  **no**

$15 = 3(5)$   
 $15 = 15$  **yes**

Both Carrie and her sister Kim were born on October 25, but Kim was born 2 years before Carrie. How can you represent the relationship between Carrie's age and Kim's age in different ways?

Independent Variable - always the variable that is written 1st in a chart  
 (x) - the value that we can change

Dependent Variable - always the variable that is written 2nd in a chart  
 (y) - the value that changes based on the independent variable

Make a Table:

IV: Kim's Age

DV: Carrie's Age

x	y
2	0
3	1
4	2
5	3
6	4

Equation:

DV = the relationship to the IV

Carrie's Age = Kim's Age - 2

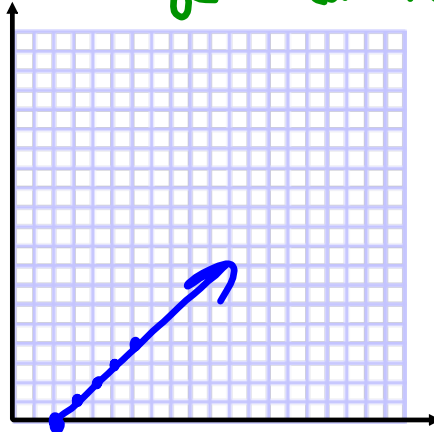
$y = x - 2$

Both Carrie and her sister Kim were born on October 25, but Kim was born 2 years before Carrie. How can you represent the relationship between Carrie's age and Kim's age in different ways?

Draw a graph:

Carrie's  
Age  
(yrs)

y



The Effect of Kim's  
Age on Carrie's Age

Kim's Age (yrs)

Assignment:

Worksheet 1-9 #1-9

\* Show ALL work on a separate sheet of paper \*