Name _____

Quiz #2 (2.8 - 2.13) Review

Algebra 1

2.8: Which Variable to Solve for (Part 1)

- ☐ Given an equation, I can solve for a particular variable (like height, time, or length) when the equation would be more useful in that form.
- ☐ I know the meaning of the phrase "to solve for a variable."

2.9: Which Variable to Solve for? (Part 2)

- ☐ I can write an equation to describe a situation that involves multiple quantities whose values are not known, and then solve the equation for a particular variable.

(DM: Single Step Literal Equations)
(DM: Standard to slope intercept form)

① $B + C = g$ Solve for B

② $3x - 4y = 6$ Solve for y

③ $3.6w + 2.8s = 10.8$ Solve for w

2.10: Connecting Equations to Graphs (Part 1)

- ☐ I can describe the connections between an equation of the form, the features of its graph, and the rate of change in the situation.
- ☐ I can graph a linear equation of the form $y = mx + b$.

2.11: Connecting Equations to Graphs (Part 2)

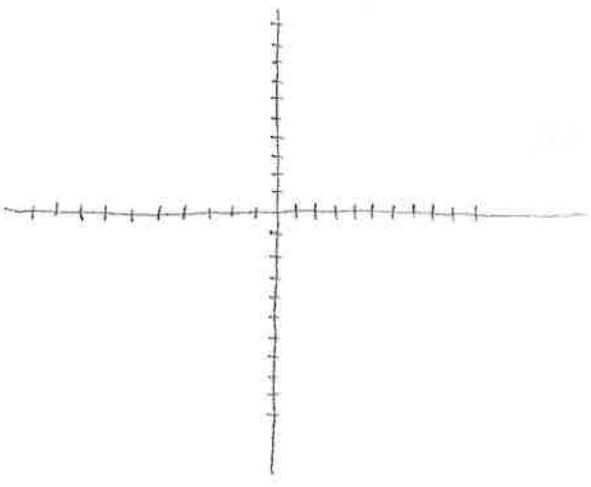
- ☐ I can find the slope and vertical intercept of a line with equation $ax + by = c$.
- ☐ I can take an equation of the form $ax + by = c$ and rearrange it into the equivalent form $y = mx + b$.
- ☐ I can use a variety of strategies to find the slope and vertical intercept of the graph of a linear equation given in different forms.

(DM: x and y intercepts)
(DM: graphing $Ax + By = C$ from intercepts)
(DM: find the slope graphically)
(DM: graphing lines from equations)

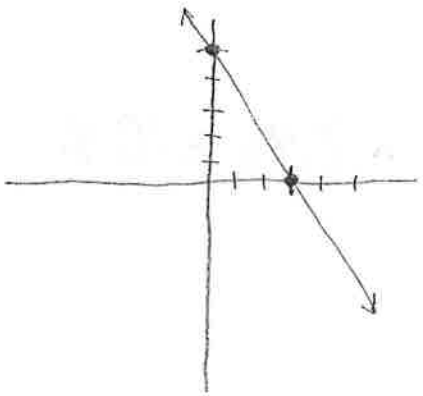
(4) Find the x & y intercepts for $-5x + 2y = 10$

(5) Find the slope and the y-intercept for $5x - 4y = 20$

(6) Graph $y = -\frac{3}{5}x + 2$



(7) Find the slope of the line



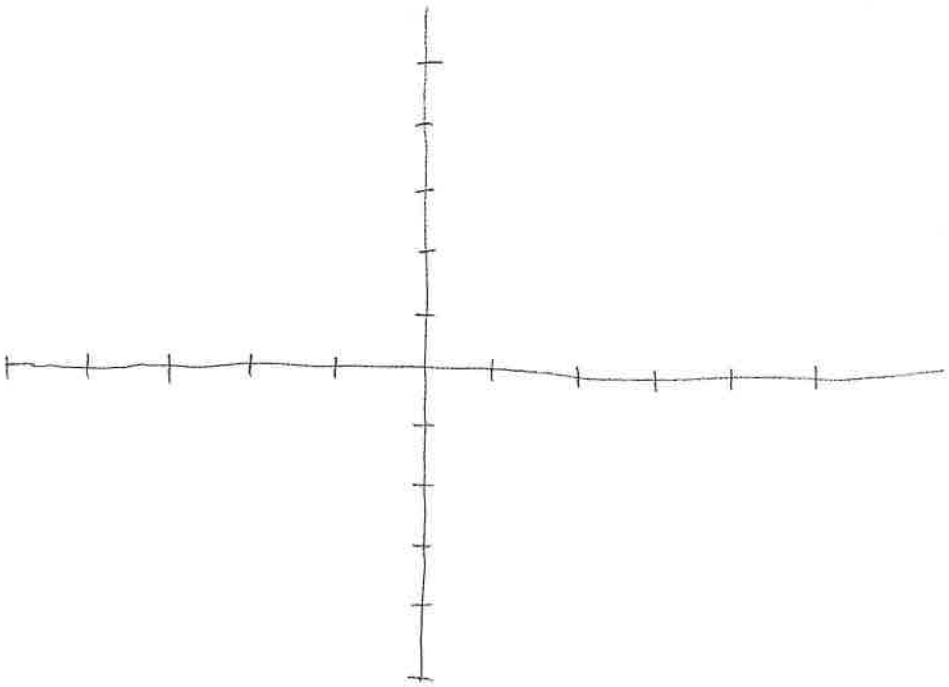
2.12: Writing and Graphing Systems of Linear Equations

- ☐ I can explain what we mean by "the solution to a system of linear equations" and can explain how the solution is represented graphically.
- ☐ I can explain what we mean when we refer to two equations as a system of equations.
- ☐ I can use tables and graphs to solve systems of equations.

(DM: solve linear systems graphically)

(8) Solve using graphing: (manually, or with calculator)

$$y = -x + 2$$
$$y = 2x - 4$$



2.13: Solving Systems by Substitution

- ☐ I can solve systems of equations by substituting a variable or an expression.
- ☐ I know more than one way to perform substitution and can decide which way or what to substitute based on how the given equations are written.

(DM: substitution)

Solve the following systems using substitution:

(9) $\begin{cases} y = 8x \\ y = 4x + 8 \end{cases}$

(10) $\begin{cases} -6y = x \\ x + y = -30 \end{cases}$

(11) $\begin{cases} x = -1y - 5 \\ -3x + 7y = -45 \end{cases}$