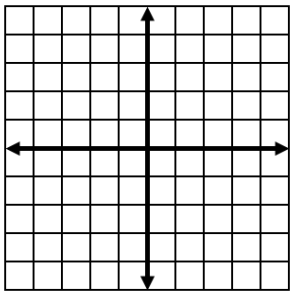
Alg 1 Week 15 Monday Warm Up

1. Skill 6: Convert to slope intercept form and graph

$$-2x+5y=10$$



2. Skill 7: Write the equation of the line that passes through the given points in slope intercept form.

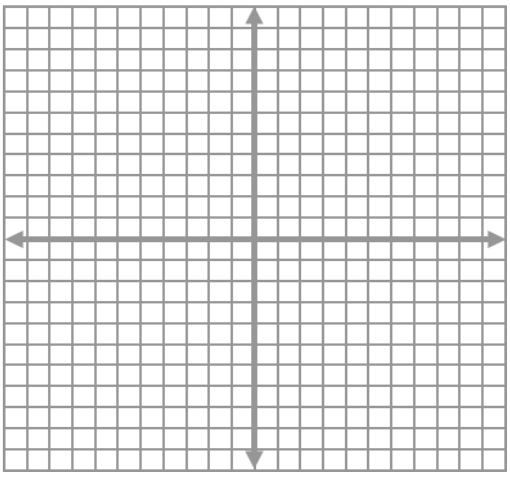
(0,-2) and (4,2)

3. Skill 8: Write the equation of the line that is perpendicular to $y=-\frac{7}{2}x-5$ and passes through (14,-10) in slope-intercept form.

4. Skill 9: Graph the given equations on the same grid. Then find their intersection point and check to see if that intersection point is on BOTH lines.

Line A: $y=2x-4$

Line B: $2x+3y=12$



Intersection point (,)

Check
First line:

Check
Second line:

5. Skill 10: Solve the system of equations by substitution. (Just like block day's notes)

$$x+2y=18$$

$$y=\frac{1}{2}x-18$$

More Notes for 6-2 Solving by Substitution

Problem 2 Solving for a Variable and Using Substitution

What is the solution of the system? Use substitution. $3y + 4x = 14$, $-2x + y = -3$

Got It? **2. a.** What is the solution of the system? Use substitution. $6y + 5x = 8$, $x + 3y = -7$

b. Reasoning In your first step in part (a), which variable did you solve for? Which equation did you use to solve for the variable?

Problem 3 Using Systems of Equations

Snack Bar **A snack bar sells two sizes of snack packs. A large snack pack is $5, and a small snack pack is $3. In one day, the snack bar sold 60 snack packs for a total of $220. How many small snack packs did the snack bar sell?**

Got It? **3.** You pay $22 to rent 6 video games. The store charges $4 for new games and $2 for older games. How many new games did you rent?

HW HWK Wk 15 Mon · Substituting Another Method

Solving a system by graphing makes it easy to visualize the solution. Sometimes, though, the graphing grid must be extremely large to accommodate the numbers, and it is very difficult to make a graph that is accurate enough to determine non-integer solutions. For these reasons, we need to develop our skill with algebraic methods for solving systems. One of the methods we have already worked with earlier in this unit is the method of **substitution**.

Solving a system of linear equations by substitution. (Part of Skill 10.)

Step 1: Solve one of the equations for either x or y.

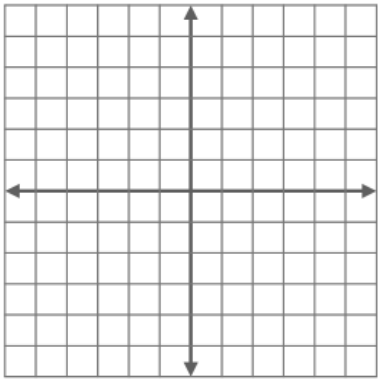
Step 2: Substitute the expression from step 1 into the other equation, for the appropriate variable.

Step 3: Solve the resulting equation for the one remaining variable, either x or y.

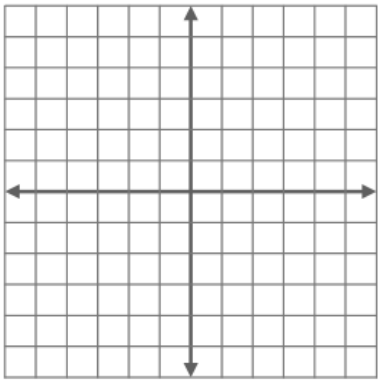
Step 4: Substitute this value back into either of the original equations and solve for the other variable.

Solve each *system* by the *substitution method*, and check the answer by the *graphing method.*

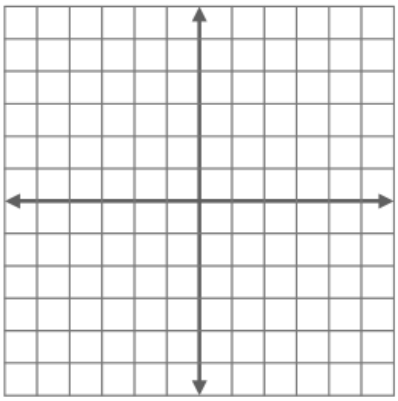
1. $y = x - 6$
   $y = -2x + 3$



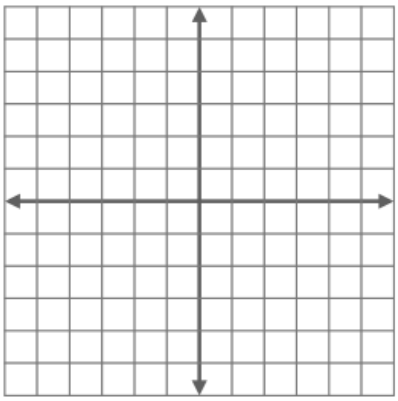
2. $y = x + 4$
   $x = 2y$



3. $x + y = 6$
   $-2x + y = 3$



4. $y = \frac{3}{5}x - 1$
   $2x + 5y = 20$



Scrambled answers for x: -8,1,3,5