Week 5 Homework

Name: _____  Block: _____

1. Gerelt-od and Nathaly start reading books at the same time. Gerelt-od has already read 3 books and begins to read 5 books each week. Nathaly starts with 6 books already read and reads 4 books each week.
    a. Write a system of linear equations to represent the number of books read by Gerelt-Od and Nathaly
        - Gerelt-Od:
        - Nathaly:

2. Kayla and Arsema start their exercise routines at the same time. Kayla starts with 10 push-ups already done and does 20 push-ups each day. Arsema has 15 push-ups already done and does 15 push-ups each day.
    a. Write a system of linear equations to represent the number of push-ups Kayla and Arsema are doing:
        - Kayla:
        - Arsema:

Day 17/18/19 Homework

3. Create a table that represents the two following equations in the system of linear equations below:

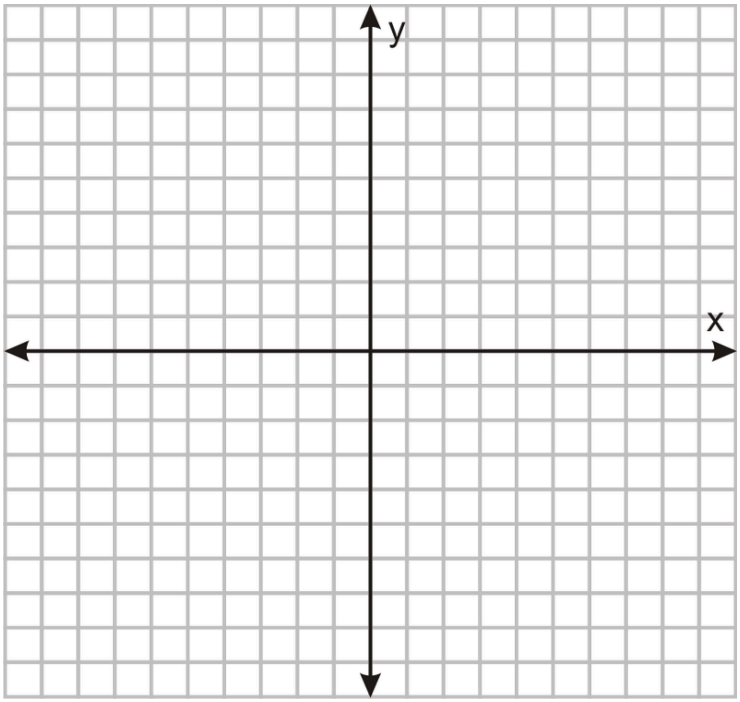
$$\begin{cases} y = 0.5x + 12 \\ y = 2x + 27 \end{cases}$$

4. Create a table that represents the two following equations in the system of linear equations below:

$$\begin{cases} y = 4x - 3 \\ y = -2x + 9 \end{cases}$$

Day 17/18/19 Homework

5. Solve the system of equations using a graph: $\begin{cases} y = \frac{5}{4}x - 2 \\ y = \frac{-1}{4}x + 19 \end{cases}$

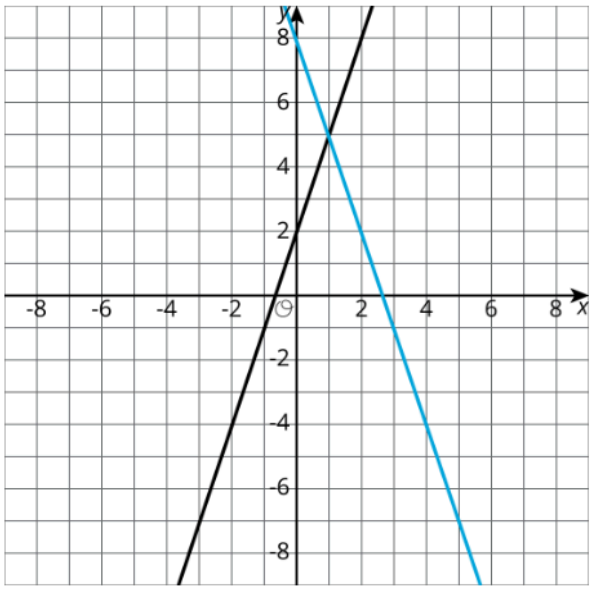


Label:

- Coordinate plane axis
- Point of intersection

The solution to this system of equations is: (_____ , _____)

6. Write Equations to represent each line for the system of equations on the graph in y = mx + b form:



BLUE LINE:

BLACK LINE:

a. Describe how to find the solution to this system of equations by looking at the **graph**

b. Explain what the graph tells you about the relationship of this system of equations:

Day 17/18/19 Homework

7. Consider the two following equations:

a. $4y - 8x(2) + 7 - (-15) = 12$

b. $2y - \frac{5}{2}x + 7 - (-\frac{4}{3}) = -6$

a. Rewrite the two linear equations into ***slope intercept form***.

b. Find the slopes of your **new** equations **(show your work)**.

c. Are there intercept(s)? If so, write your solution(s) in coordinate form for both equations.

d. Graph both of the following equations, label your lines, and highlight any intercept. **(Create tables if you need help graphing the values)**