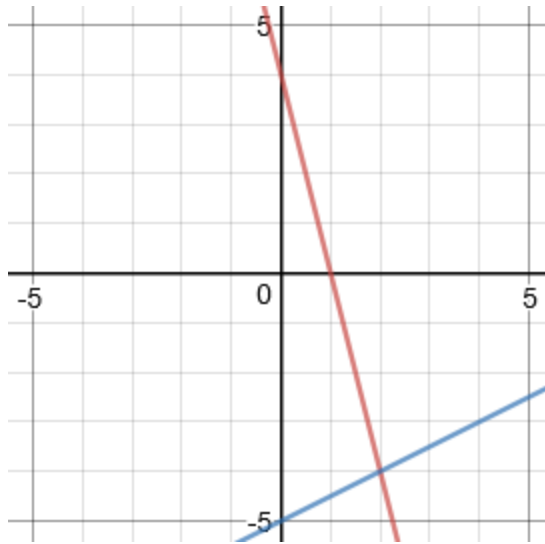


### Systems of Equations Assessment

1. Determine the solution point to the system of equations graphed below



- A** (-4, -2)      **B** (-2, 4)  
**C** (2, -4)      **D** (4, -2)

2. What is the solution to the system of equations below?

$$\begin{aligned} 8x + 14y &= 4 \\ -6x - 7y &= -10 \end{aligned}$$

- A** (4, -2)      **B** (-4, 2)  
**C** (-2, 4)      **D** (2, -4)

3. Which of the following systems has no solutions?

**A**  $\begin{cases} y = \frac{1}{2}(4x - 10) \\ y = 2x - 5 \end{cases}$       **B**  $\begin{cases} y = \frac{1}{3}(9x - 24) \\ y = 3x + 8 \end{cases}$

**C**  $\begin{cases} y = \frac{3}{4}(8x + 20) \\ y = 8x - 15 \end{cases}$       **D**  $\begin{cases} y = \frac{2}{3}(3x - 15) \\ y = 2x - 10 \end{cases}$

4. Rose started an Etsy account and sells crocheted hats and scarfs. The equation  $y = 2x + 30$  models her expenses, while the equation  $y = 15x$  models her profit. Which equation can be used to determine when her profit will exceed her costs by \$400?

- A**  $2x + 30 = 15x + 400$   
**B**  $2x + 430 = 15x$   
**C**  $17x + 30 = 400$   
**D**  $17x = 380$

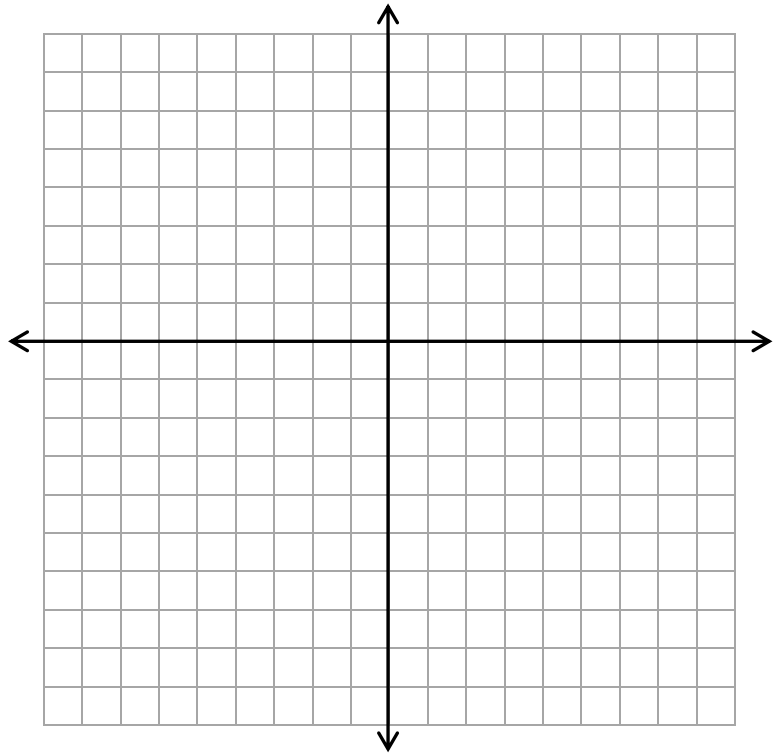
5. A class went on a field trip to an aquarium. Student tickets cost \$6 and adult chaperone tickets cost \$12. Two-hundred six people went on the trip and tickets cost a total of \$1332. Which system of equation can be used to determine how many adults and students went on the trip?

**A**  $\begin{cases} 6x - 12y = 206 \\ x - y = 1332 \end{cases}$       **B**  $\begin{cases} 6x + 12y = 206 \\ x + y = 1332 \end{cases}$

**C**  $\begin{cases} 6x + 12y = 1332 \\ x + y = 206 \end{cases}$       **D**  $\begin{cases} 6x - 12y = 206 \\ x + y = 1332 \end{cases}$

6. Find the solution to the system of equations below graphically.

$$\begin{cases} y = -2x - 9 \\ y = \frac{2}{3}x - 1 \end{cases}$$



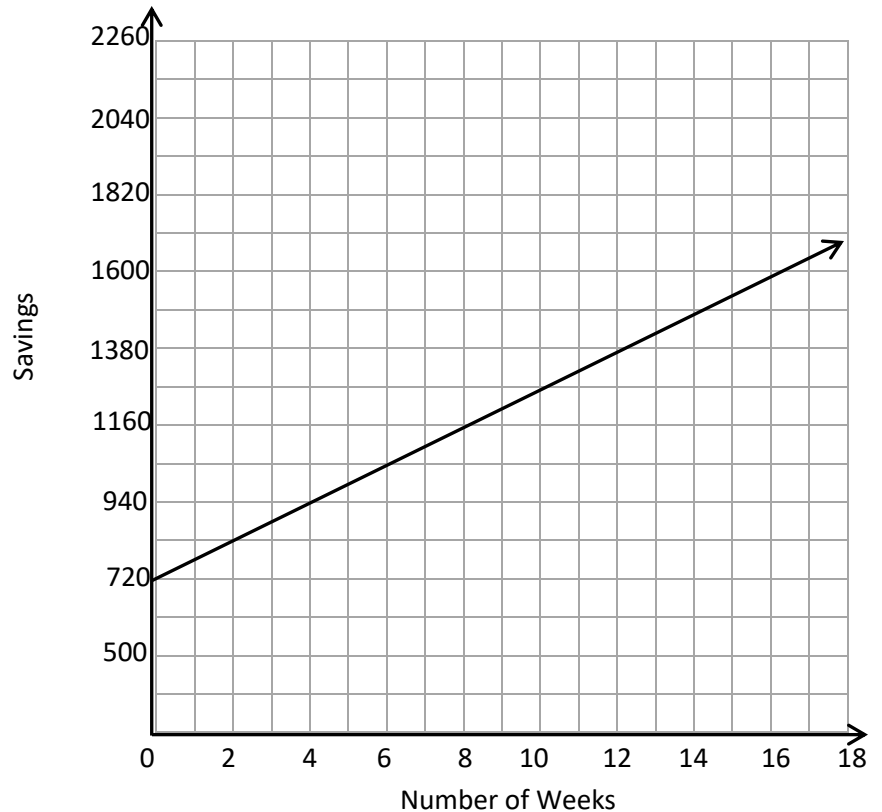
7. Marshall's is having a sale on shirts and pants. One shopper bought 12 pairs of pants and 11 shirts for \$290. Another shopper bought 3 pairs of pants and 5 shirts for \$95.

**Part A** How much did each pair of pants and shirt cost?

**Part B** A third shopper wants to buy 16 pairs of pants and 8 shirts. How much will they be charged?

8. Two friends set up savings account and track their accounts as follows.

**Part A** Jackie started a savings account as modeled by the graph below. Write a function rule that models this.



**Part B** Emily uses the chart at right. What function rule models this?

x (Number of weeks)	y (Amount in savings)
1	845
2	890
3	935
4	980

**Part C** After how many weeks will they have the same amount of money in savings? Show work or explain.