

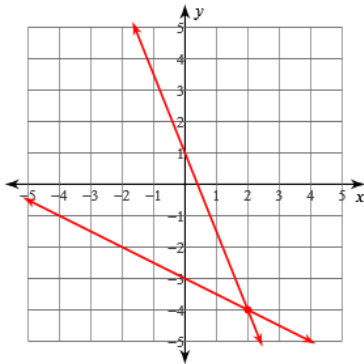
Algebra II

Name _____

#42

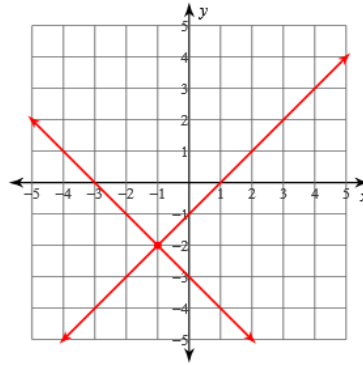
Solve each system by graphing.

1) $y = -\frac{5}{2}x + 1$
 $y = -\frac{1}{2}x - 3$



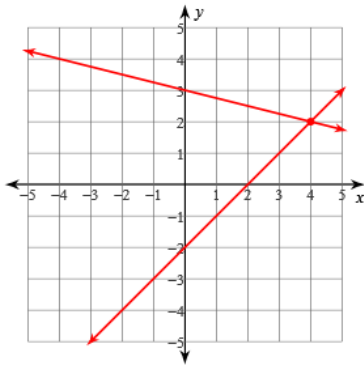
(2, -4)

2) $y = -x - 3$
 $y = x - 1$



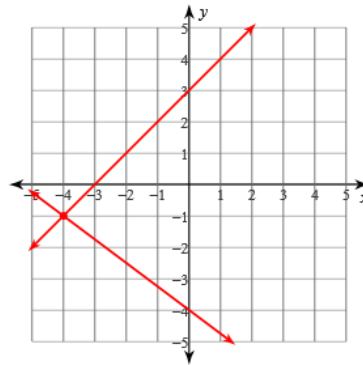
(-1, -2)

3) $x + 4y = 12$
 $x - y = 2$



(4, 2)

4) $x - y = -3$
 $3x + 4y = -16$



(-4, -1)

Solve each system by substitution.

$$\begin{aligned} 5) \quad x - 8y &= -7 \\ 8x - 2y &= 6 \\ (1, 1) \end{aligned}$$

$$\begin{aligned} 6) \quad 6x + y &= 9 \\ -6x + 2y &= -18 \\ (2, -3) \end{aligned}$$

$$\begin{aligned} 7) \quad 4x + 4y &= 20 \\ 7x + y &= -13 \\ (-3, 8) \end{aligned}$$

$$\begin{aligned} 8) \quad -3x + y &= -1 \\ -6x + 2y &= -2 \\ \text{Infinite number of solutions} \end{aligned}$$

Solve each system by elimination.

$$\begin{aligned} 9) \quad -3x - 8y &= -23 \\ 4x + 5y &= 25 \\ (5, 1) \end{aligned}$$

$$\begin{aligned} 10) \quad -24x + 64y &= -16 \\ -9x + 24y &= -9 \\ \text{No solution} \end{aligned}$$

$$\begin{aligned} 11) \quad & 4x - 4y = -12 \\ & -10x - 9y = 30 \\ & (-3, 0) \end{aligned}$$

$$\begin{aligned} 12) \quad & -7x - 10y = -9 \\ & 6x + 7y = 3 \\ & (-3, 3) \end{aligned}$$

- 13) Julio's school is selling tickets to a spring musical. On the first day of ticket sales the school sold 2 adult tickets and 3 student tickets for a total of \$48. The school took in \$86 on the second day by selling 4 adult tickets and 5 student tickets. Find the price of an adult ticket and the price of a student ticket.

adult ticket: \$9, student ticket: \$10

- 14) The school that Aliyah goes to is selling tickets to a choral performance. On the first day of ticket sales the school sold 13 adult tickets and 6 student tickets for a total of \$215. The school took in \$177 on the second day by selling 3 adult tickets and 12 student tickets. Find the price of an adult ticket and the price of a student ticket.

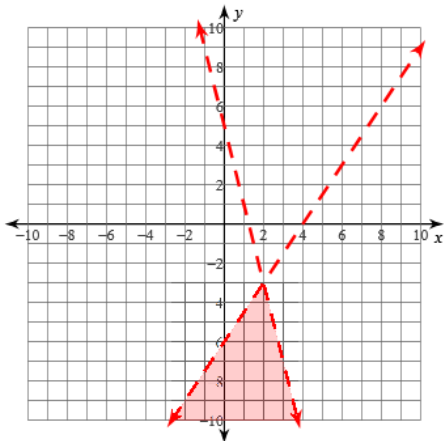
adult ticket: \$11, student ticket: \$12

- 15) Pappoo has \$1.95 in dimes and quarters. He has a total of 12 dimes and quarters. How much of each coin does he have?

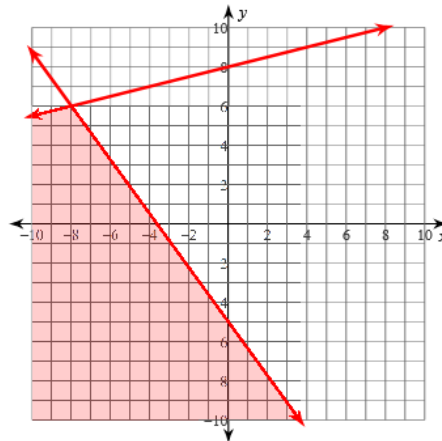
quarters: 5, dime: 7

Sketch the solution to each system of inequalities.

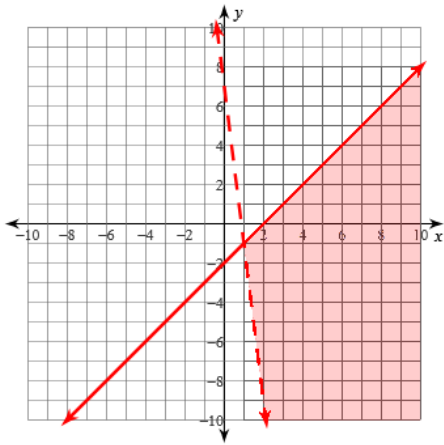
16) $y < \frac{3}{2}x - 6$
 $y < -4x + 5$



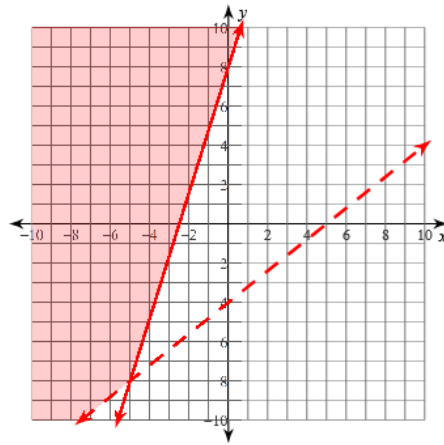
17) $y \leq \frac{1}{4}x + 8$
 $y \leq -\frac{11}{8}x - 5$



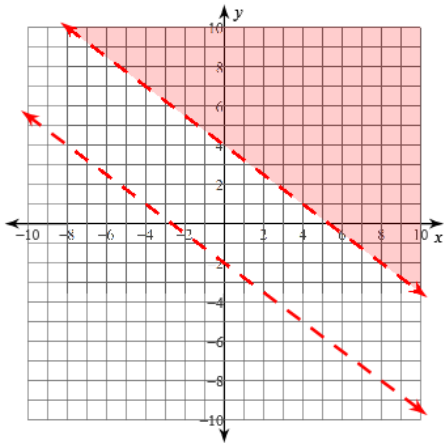
18) $y > -8x + 7$
 $y \leq x - 2$



19) $16x - 5y \leq -40$
 $4x - 5y < 20$



20) $3x + 4y > 16$
 $3x + 4y > -8$



21) $x - 2y < 6$
 $x + 4y \leq 12$

