

Algebra 1 Benchmark 9.2

1. During the basketball game, there were 300 tickets sold and they made \$1,200. The student tickets were \$2 and the adult tickets were \$5. How many adult tickets were sold?

$a = \# \text{ adult tickets}$

$S = \# \text{ student tickets}$

$(a + s = 300)^{1st}$

$5a + 2s = 1200^{2nd}$

$-2a - 2s = -600$

$$\begin{array}{r} 3a = 600 \\ \underline{a} \\ 3 \end{array}$$

$a = 200$

200 adult tickets

100 student tickets

Topic: Solving Systems Word Problems

2. Josh has \$20 and is saving \$5 a day. Sal has \$160 and is spending \$2 a day. After how many days will they have the same amount of money?

Josh $y = 20 + 5x$

Sal $y = 160 - 2x$

$$\begin{array}{r} 160 - 2x = 20 + 5x \\ \underline{-5x \quad -5x} \end{array}$$

$$\begin{array}{r} 160 - 7x = 20 \\ \underline{-160 \quad -160} \end{array}$$

$$\begin{array}{r} -7x = -140 \\ \underline{-7 \quad -7} \end{array}$$

$x = 20$

20 days

Algebra 1 Benchmark 9.3

Topic: Graphing Linear Systems of Equations and Inequalities

1. What ordered pair is the solution to this system of equations? (Use graphing)

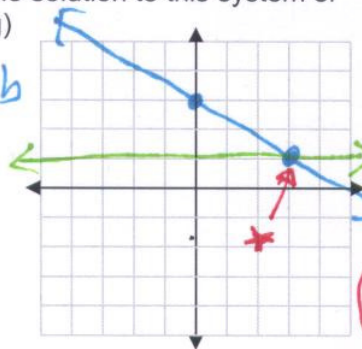
$y = -\frac{2}{3}x + 3$

$y = mx + b$

$y = 1$

$m = -\frac{2}{3}$

$b = 3$



$(3, 1)$

2. Graph the solution to this system?

$x > -1$

$x - 2y \leq 2$

$-x - 2y \leq -x + 2$

$y \geq \frac{1}{2}x - 1$

$m = \frac{1}{2}$

$b = -1$

