

REVIEW Unit 3 Test

Name: _____

SHOW YOUR WORK ON ALL PROBLEMS, Round to the nearest tenth if needed.

Date: _____ Block: _____

1. Solve each system using the correct method

a. Substitution

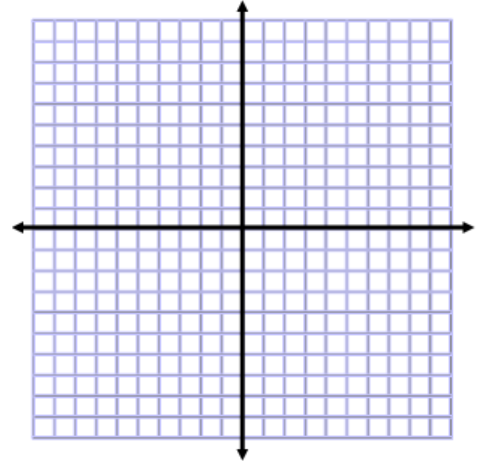
$$\begin{aligned} 2x - 3y &= -1 \\ y &= x - 1 \end{aligned}$$

b. Elimination

$$\begin{aligned} 5x + y &= 9 \\ 10x - 7y &= -18 \end{aligned}$$

c. Graphing

$$\begin{aligned} y &= -2x + 2 \\ y &= -2x - 2 \end{aligned}$$



2. Solve each inequality and graph its solution on a number line.

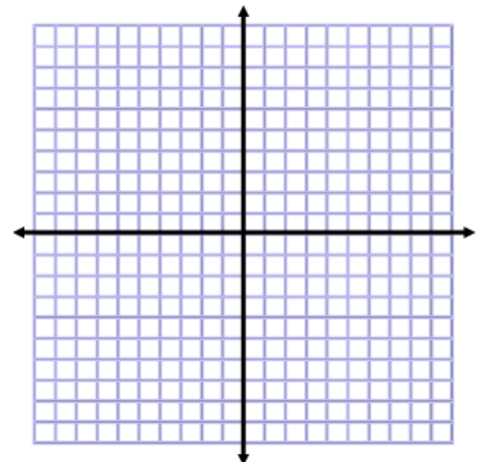
a. $8x + 2 \leq 138$

b. $5k - 2k > -9$

c. $-9 > -5n - 4n$

d. $-2r - 2 \leq 4$

3. Sketch the graph of the inequality on the graph provided. $y \geq -4x + 6$
Remember to shade!!!!!!



4. Solve each system by the method of your choice

a.
$$\begin{aligned}x - y &= 11 \\ 2x + y &= 19\end{aligned}$$

b.
$$\begin{aligned}y &= -2 \\ 4x - 3y &= 18\end{aligned}$$

d.
$$\begin{aligned}y &= -\frac{1}{2}x - 1 \\ y &= \frac{1}{4}x - 4\end{aligned}$$

5. Kristin spent \$131 on shirts. Fancy shirts cost \$28 and plain shirts cost \$15. If she bought a total of 7 then how many of each kind did she buy?

6. Molly's Custom Kitchen Supplies sells handmade forks and spoons. It costs the store \$1.70 to buy the supplies to make a fork and \$1.30 to buy the supplies to make a spoon. The store sells forks for \$5.60 and spoons for \$5.40. Last April Molly's Custom Kitchen Supplies spent \$37.90 on materials for forks and spoons. They sold the finished products for a total of \$147.20. How many forks and how many spoons did they make last April?

7. Susan bought 9 apples and 8 bananas for \$7.30. Johnny bought 12 apples and 2 bananas for \$4.35. How much does an apple and a banana cost each?

8. REVIEW SECTION!!!!

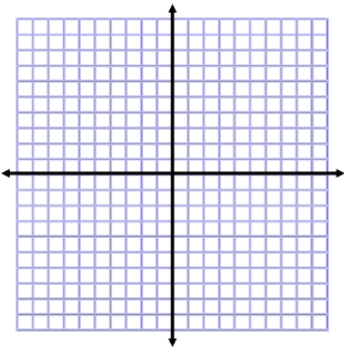
a. Solve $2x - 4x = 12 - 6x$

b. Multiply $(x-10)(x+11)$

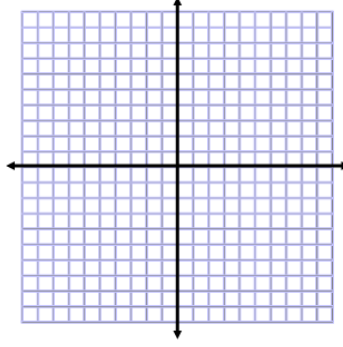
c. Find the mean and median of this data, and tell me why the mean is so much higher than the median?
12, 11, 13, 15, 18, 90, 12, 11, 16, 17, 20

9. Draw an example of each type of system:

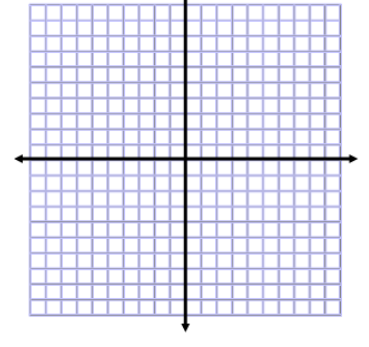
One Solution



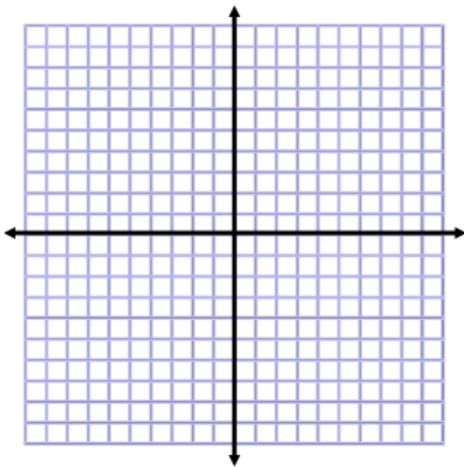
No Solution



Infinite Solutions



10. Graph each system of inequalities and shade its solution (you may use colorful pens if you want)



a. $x \leq -3$
 $y < \frac{5}{3}x + 2$

b. $y \leq \frac{1}{2}x + 2$
 $y < -2x - 3$

