

Honors Algebra 2
Solving Systems of Equations by Graphing

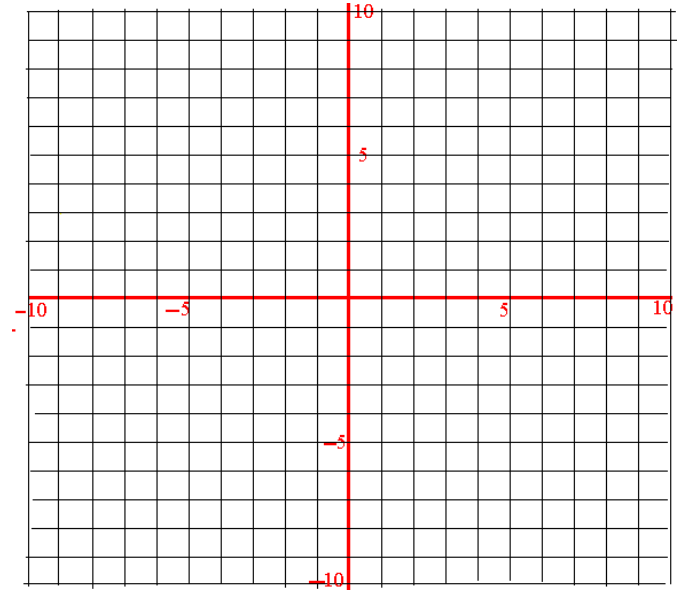
_____ is a system grapher.

Date: _____ Period: _____

Warm-up:

Graph. State the slope and y-intercept.

0.) $3x - 4y - 12 = 0$



Slope: _____

y-intercept: _____

Answer the following questions below in complete sentences.

What is a System of Equations?

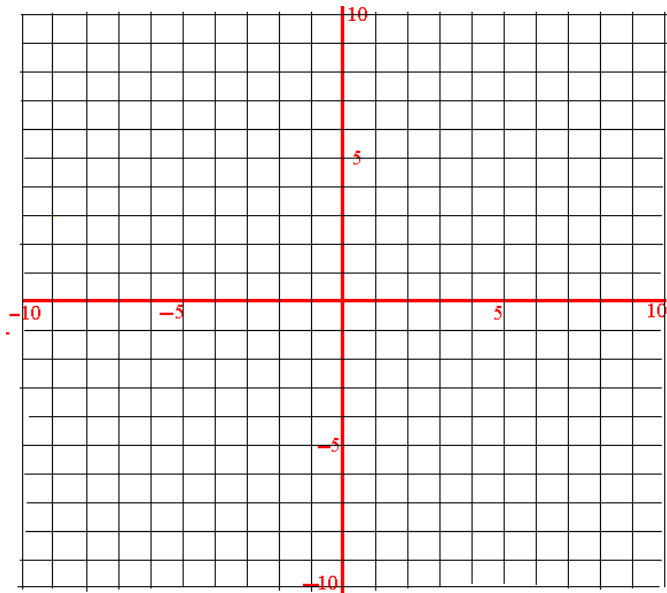
What is a Solution to a System of Equations?

What does a Solution do for a System of Equations?

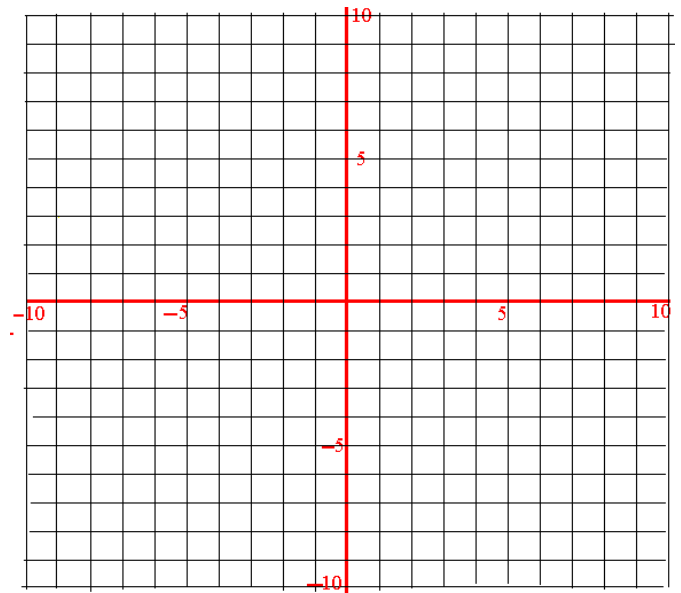
Recall the “Starbucks Task”; what did the intersection of the lines representing the equations of the two drinks mean?

Solve.

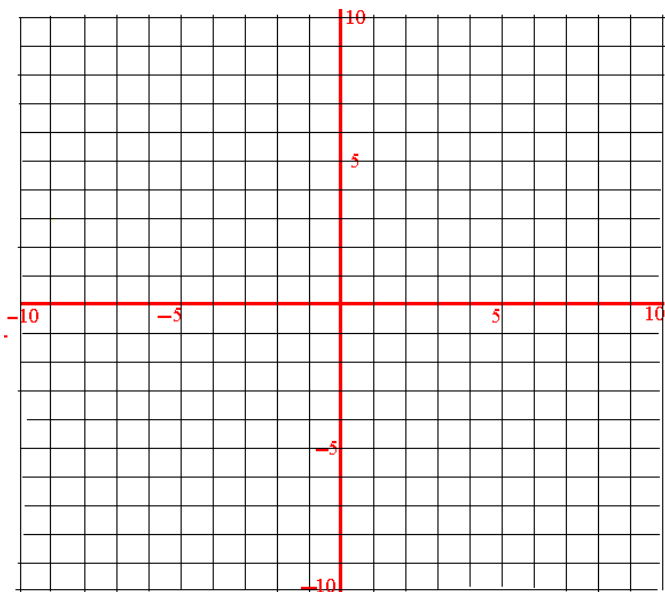
1.) $3x + 6y + 12 = 0$
 $x + 2y = 8$



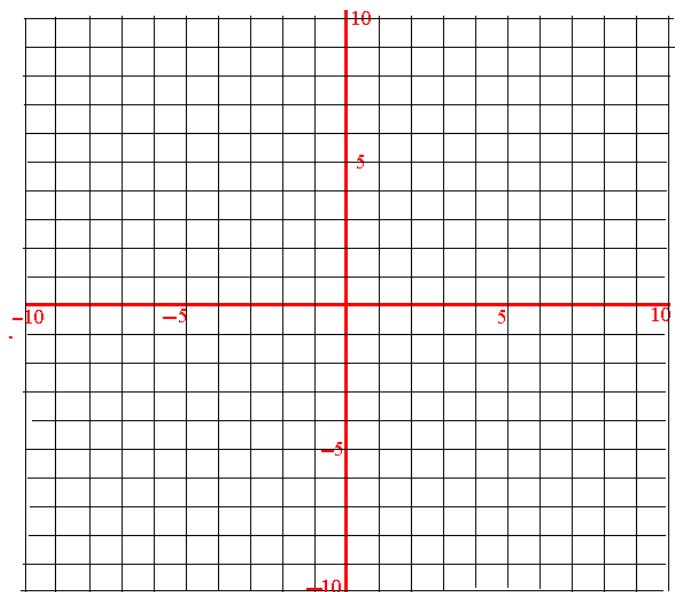
2.) $8 = 4y + x$
 $8y = -2x + 16$



3.) $-x + 3y = 6$
 $2x - y = 8$



4.) $2x - 5y = 10$
 $3x + 4y = 4$



#TBT

- 5.) To rent a power saw from Home Depot they charge a flat fee of \$25 and \$3.50 per hour. Let h represent the number of hours rented and C represent the total cost of the power saw rental.



- a.) Write an equation to represent the relationship between the number of hours the saw was rented and the total cost of the rental.
- b.) According to your equation, how much would it cost to rent the saw for 24 hours?
- c.) According to your equation, if a person paid \$63.50 for the rental, how long did they rent the saw for?

Simplify. No Calculator. All work must be shown to receive the recognition, praise, and honor you deserve.

6.) $25 \cdot (5 - 2) \div 5 - 12 + 24 \div 2^3 + 6 + 2^4 - (1 + 3) + (4^3 - 20 \cdot 3) - 4^2 + 3^5 \div 3 \div (10 - 1) - 8$