

Standard Form Systems of Equations

You want to buy some new pairs of jeans and new dresses, for a total of 6 items of clothing. You go to a store that sells dresses for \$25 and jeans for \$50. You want to spend a total of \$200, which is how much money you got for your birthday. How many jeans and how many dresses do you buy? (Ignore tax.)

Variables

Total Items Equation

Total Spending Equation

x:

y:

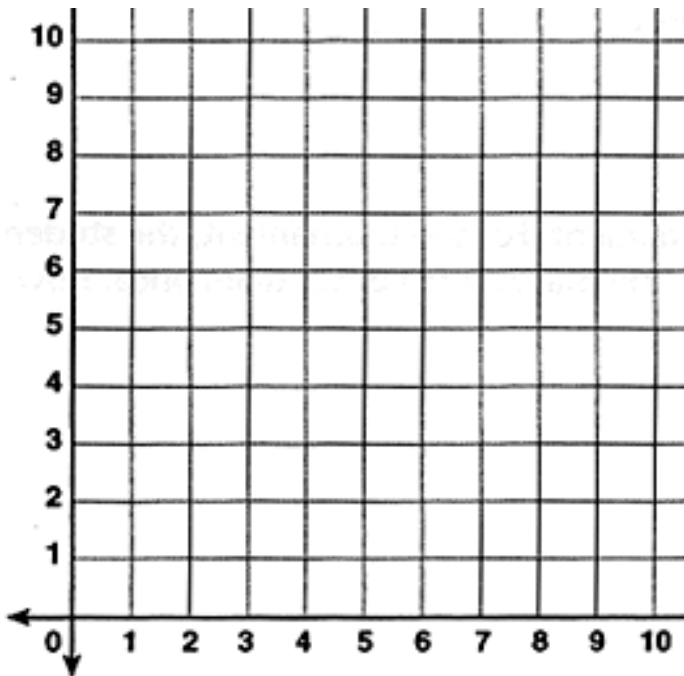
Reminder

To find x-intercept:

→ set $y = 0$

To find y-intercept:

→ set $x = 0$



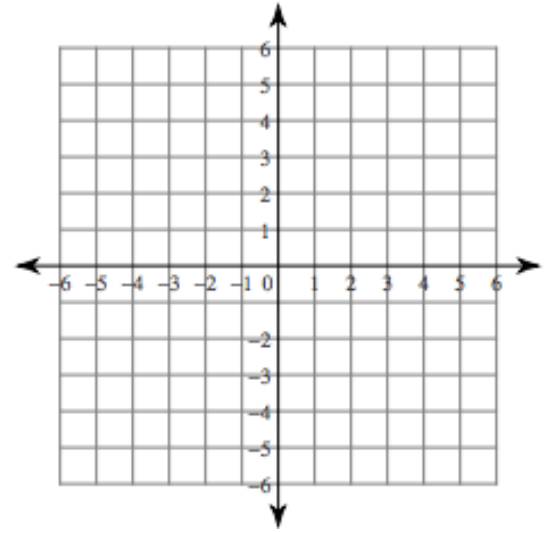
How can we check the solution?

Solve the System by Graphing the Standard Form Equations

Then check the solution.

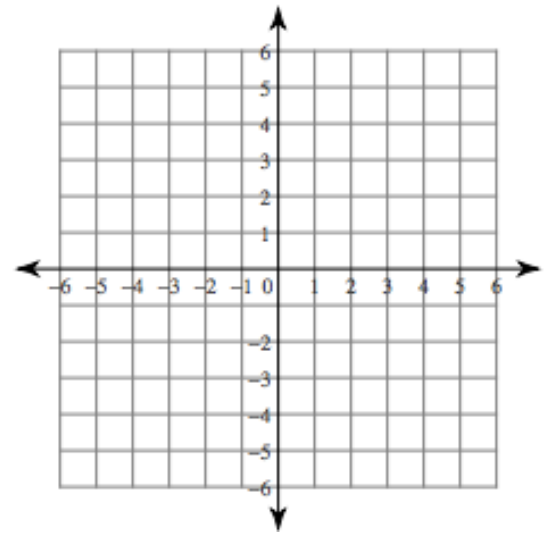
$$x - y = -1$$

$$2x + y = 4$$



$$x + 2y = 4$$

$$3x + 2y = 8$$



Multiple Choice Practice - Use your calculator!! You only have to show the work for the correct choice.

(1) Which of the following points is the solution to the system of equations?

$$y = 2x + 4$$

$$y = 5x - 2$$

- a. $(-2, 8)$ b. $(8, -2)$ c. $(2, 8)$ d. $(8, 2)$

(2) Which of the following systems of equations has the solution $(1, -3)$?

a. $4x - y = 7$

b. $4x - y = 7$

c. $4x + y = 7$

d. none of these

$4x + 2y = -10$

$2x + 4y = -10$

$2x + 4y = -1$