

Key

Int 2

### Homework 10-3

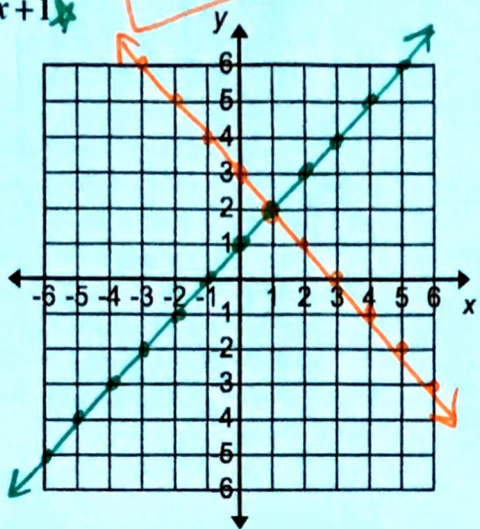
Unit 10

## Solve Systems of Equations by Graphing

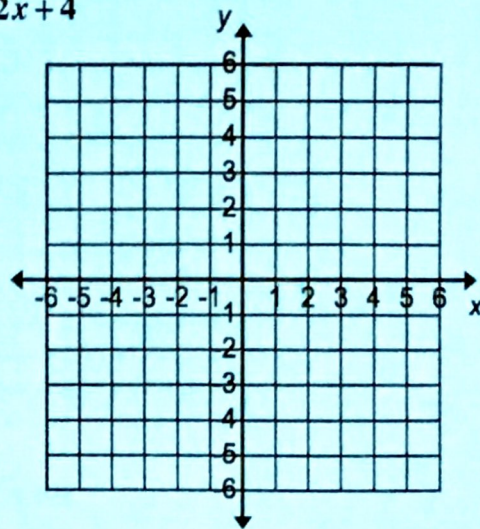
Solve each system of equations by graphing.

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

(1, 2)

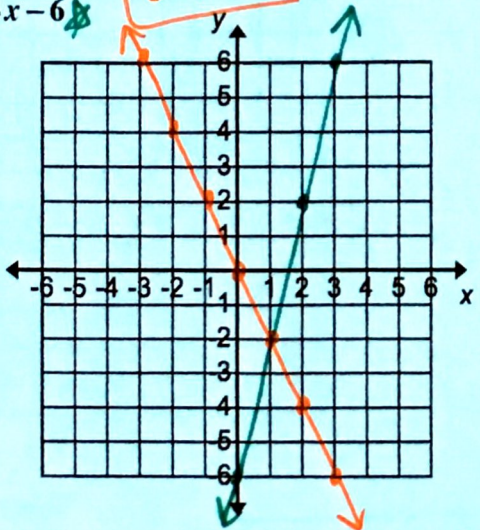


2)  $y = -x + 4$   
 $y = -2x + 4$

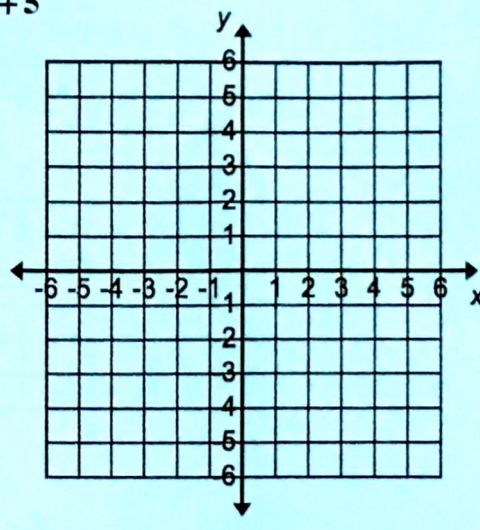


3)  $y = -2x$   
 $y = 4x - 6$

(1, -2)



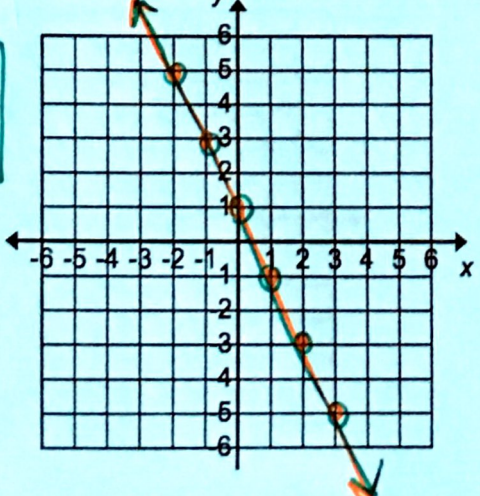
4)  $y = x$   
 $y = x + 5$



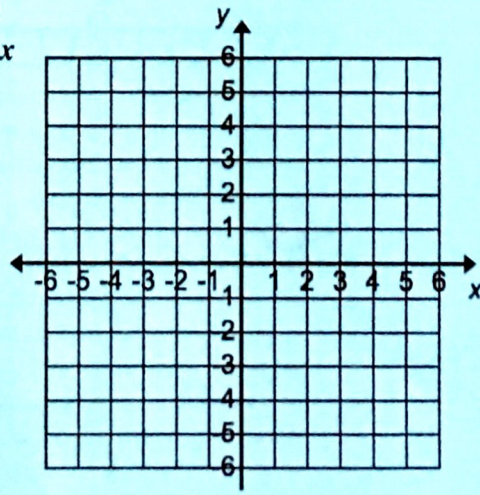
5)  $y = -2x + 1$   
 $y = x - 3$

$y = -2x + 1$

∞  
Solution



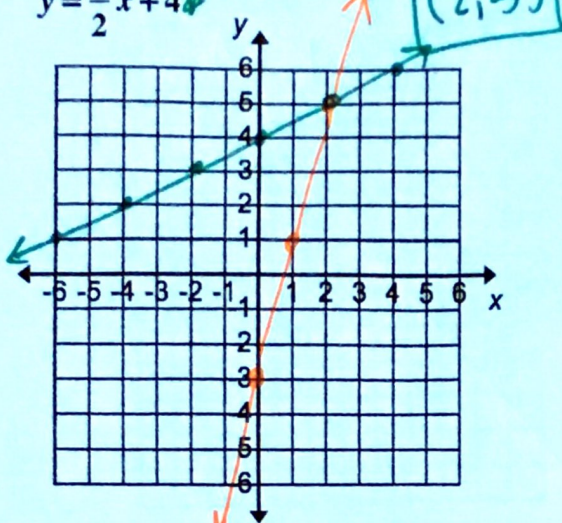
6)  $y = \frac{1}{2}x - 3$   
 $y = 2x$



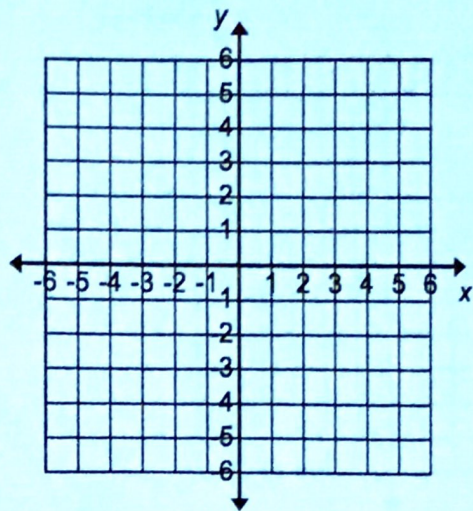
Solve each system of equations by graphing.

$y - 4x = -3$  ✖  $y = 4x - 3$

7)  $y = \frac{1}{2}x + 4$  ✖

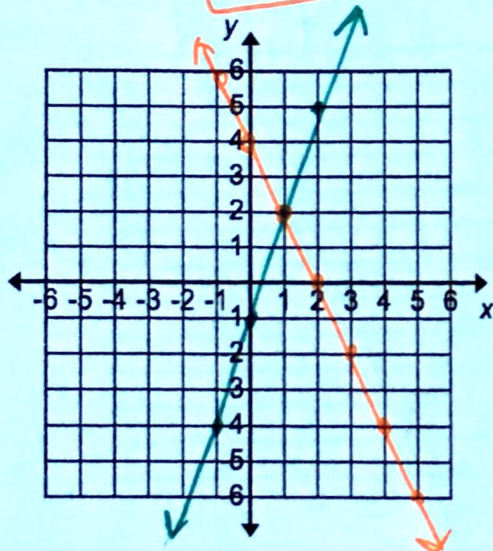


8)  $y = 4$   
 $y = -3x + 10$



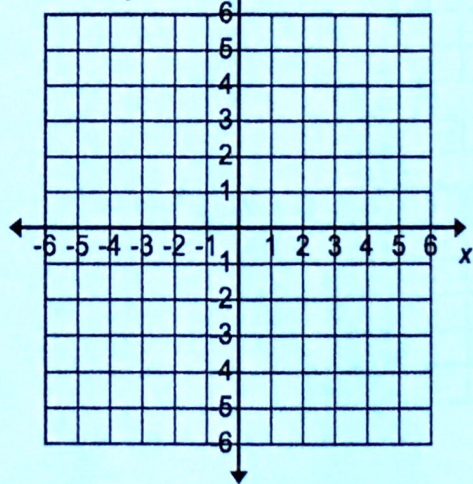
9)  $y = -2x + 4$  ✖  
 $y = 3x - 1$  ✖

(1, 2)



10)  $y = -\frac{3}{4}x + 4$

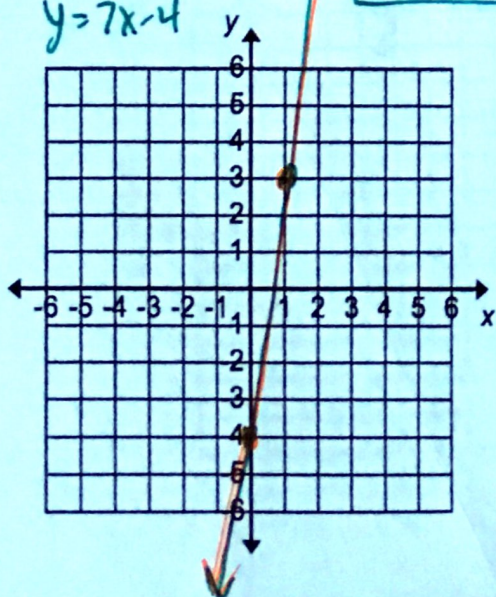
$y = \frac{3}{4}x - 2$



11)  $y = 7x - 4$  ✖  
 $y - 7x = -4$  ✖

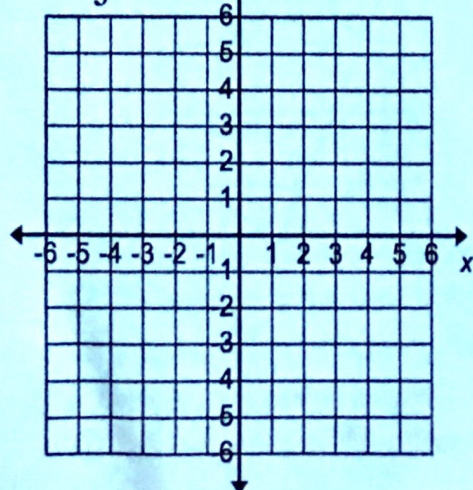
$y = 7x - 4$

∞ Solution



12)  $y = \frac{1}{3}x - 3$

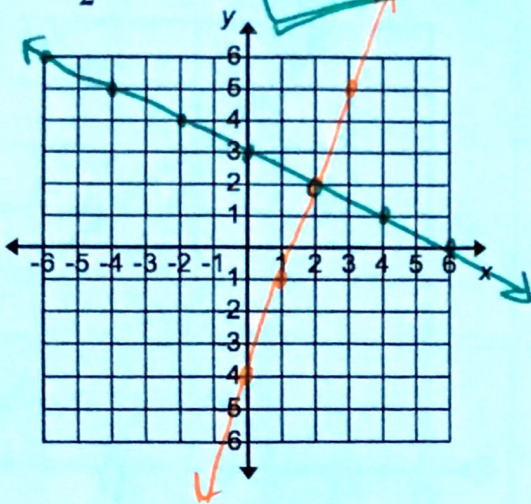
$y = \frac{1}{3}(x + 6)$



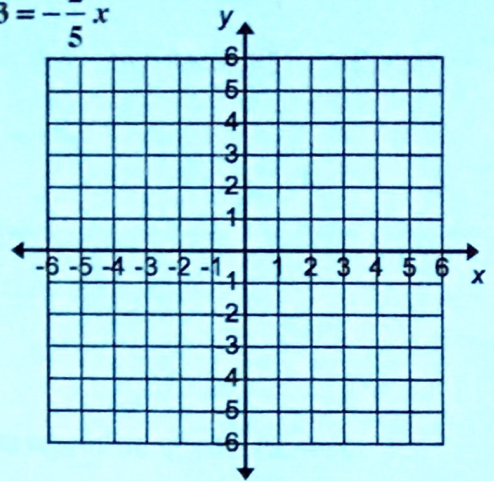
Solve each system of equations by graphing.

13)  $y = 3x - 4$   
 $y = -\frac{1}{2}x + 3$

$(2, 2)$

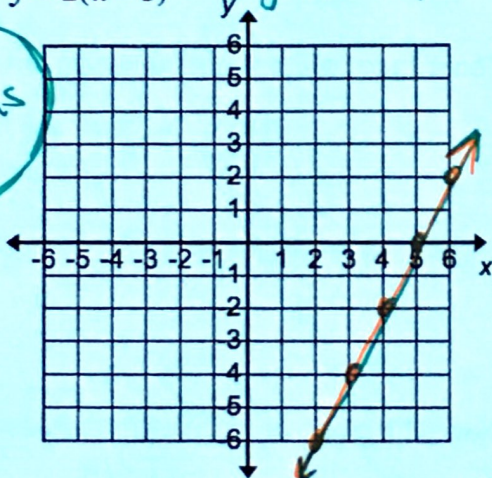


14)  $y = -\frac{2}{5}x + 1$   
 $y - 3 = -\frac{2}{5}x$

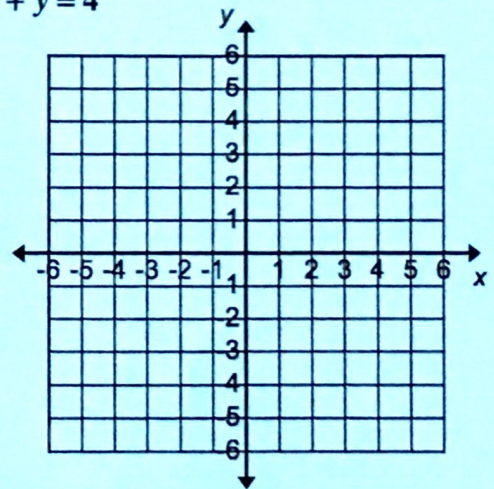


15)  $y = 2x - 10$   
 $y = 2(x - 5)$  →  $y = 2x - 10$

∞ Solutions

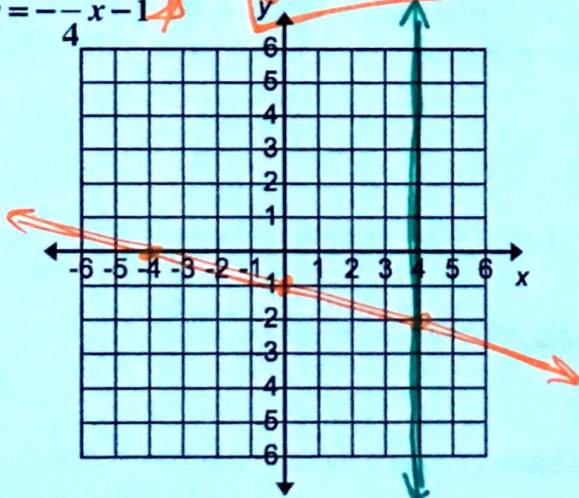


16)  $y = -5x - 3$   
 $-2x + y = 4$

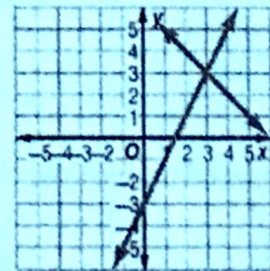


17)  $x = 4$   
 $y = -\frac{1}{4}x - 1$

$(4, -2)$

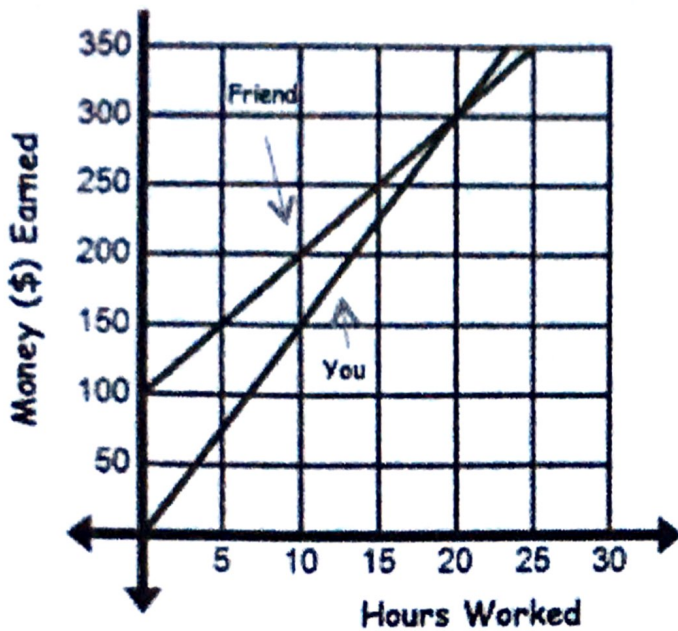


18) Two equations in a system are shown in the graph. Which of the following statements is true?



- (F) The solution of the system is (0, -3).
- (G) The solution of the system is (3, 3).
- (H) The system has no solution.
- (I) The system has infinitely many solutions.

The following graph shows you and your friend at your summer jobs. Use the graph to answer questions 19-28.



19. How much money do you make per hour?

\$15 per hour

20. How much money does your friend make per hour?

21. Which of you earns a starting bonus, and how much is it?

Friend - \$100

22. Write the equation representing your earnings.

23. Write the equation representing your friend's earnings.

$$y = 10x + 100$$

24. If you both work 50 hours per week, who would make more money?

25. How much does your friend make if he works 15 hours?

\$250

26. Your friend wants to buy a new high definition TV for playing video games with you. They will be on sale for \$350. How many hours does he need to work in order to buy one?

27. Your brother wants to get hired to work for 10 hours. Which job do you recommend he take: yours or your friend's? Why?

Friend's - He'd make \$200 as opposed to \$150.

28. How many hours would your brother work and make the same amount of money at either job? How much would that be?