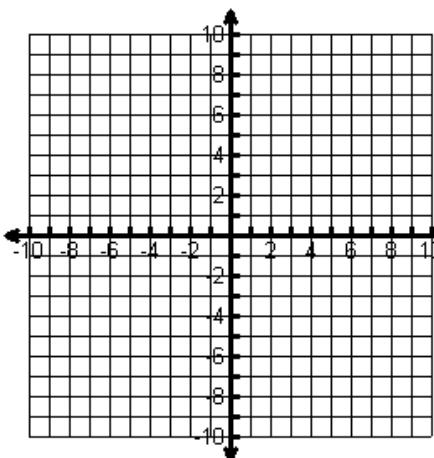
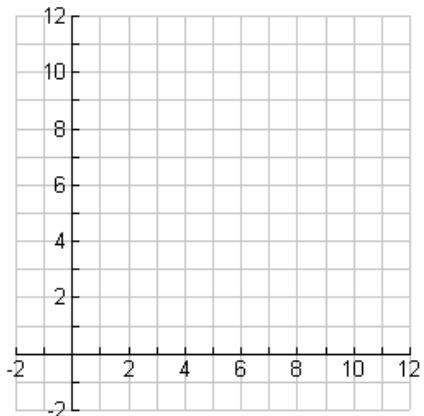


Find the solution of the linear system graphically. Write your solution in the blank provided.

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



2) _____
 $y = -2x + 7$
 $-3x + 6y = 12$



Use substitution to solve the linear system. SHOW ALL WORK.

3) _____
 $y = 2x - 2$
 $6x + 2y = 16$

4) _____
 $4x - y = -6$
 $y = 2x + 2$

- a) $\left(-\frac{4}{3}, -\frac{1}{2}\right)$
- b) $(-2, -2)$
- c) $\left(-\frac{2}{3}, \frac{10}{3}\right)$
- d) $(2, -2)$

Use elimination to solve the linear system. SHOW ALL WORK.

5) _____
 $5x - 3y = 7$
 $x + 3y = 5$

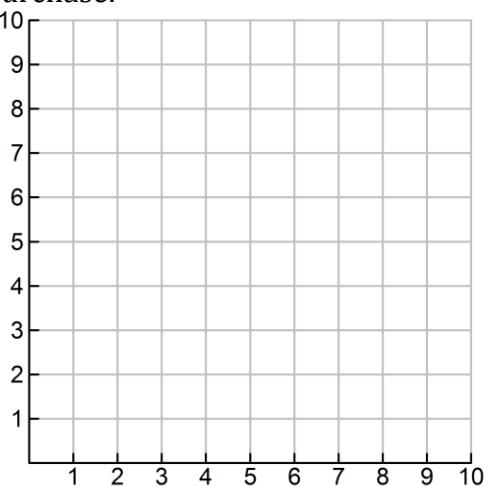
6) _____
 $-3x + 3y = -9$
 $6x + 2y = 2$

- a) $(1, -2)$
- b) $(2, -1)$
- c) $(1, 2)$
- d) $(-2, 1)$

- 7) A store sold 32 pairs of jeans for a total of \$1050. Brand A sold for \$30 per pair and Brand B sold for \$35 per pair. How many of Brand A were sold?

- a) 12
- b) 16
- c) 14
- d) 18

- 8) You are selling tickets for a basketball game. Student tickets cost \$3 and general admission tickets cost \$5. You sell 350 tickets and collect \$1450. How many of each type of ticket did you sell?
- 9) You are looking to buy a bouquet of flowers for your favorite math teacher. Lilies cost \$3.00 each and roses cost \$4.00 each. You have budgeted *no more than* \$28 to spend on flowers. Graph a linear inequality to illustrate how many of each type of flower you can purchase.



- 10) Solve the equation and write the reason for each step in solving the equation.

Equation	Steps
$2(4x + 30) = 76$	Original Equation

- 11) Create and solve the inequality. Then, graph the solution on the given number line.

“5 more than 2 times a number is greater than 21”



Solve the literal equation for the indicated variable

12)

$$\frac{2}{5}x - y = z, \text{ for } x.$$

13)

$$\frac{4a + b}{3} = c, \text{ for } a.$$

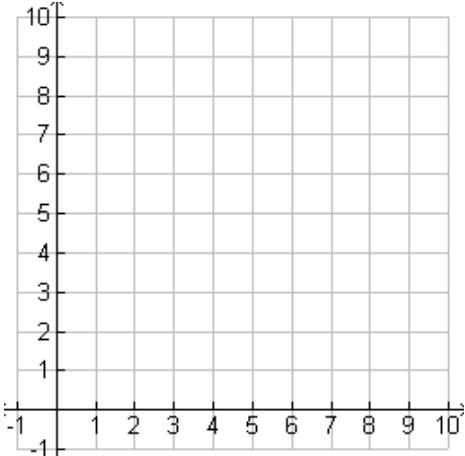
- a) $a = \frac{3b - c}{4}$
b) $a = \frac{4c + b}{3}$
c) $a = \frac{3c - b}{4}$
d) $a = 3b - c$

14) You have \$20 to spend. You need to buy chips and salsa for your friends. Chips cost \$1 per bag and salsa costs \$2 per jar.

a) Write the standard form equation. *Let x represent chips and y represent salsa.*

b) Rewrite your equation in slope-intercept form and graph.

c) If I buy 6 bags of chips how many jars of salsa can I buy?



15) Given the equation $2x + 3y = 12$, identify the slope once the equation is put into slope-intercept form.

- a) $-\frac{2}{3}$
b) $\frac{3}{2}$
c) $-\frac{3}{2}$
d) 4

16) Which property appropriately justifies the missing step?

Equation	Steps
$3k - 5 = 7$	Original Equation
$3k = 12$?
$k = 4$	Division Property of Equality

17) Write a linear equation to model the situation: *A cell phone plan costs \$50 and \$0.50 per minute.*

18) What is the solution to the inequality $5x - 15 \geq 2x + 6$?

19) The formula $d=rt$ tells the distance traveled at a given rate and time. *Solve the equation for t.* A car drove 100 miles at a rate of 20 miles per hour. *For how many hours was the car driving?*

20) Explain the ways you can determine if a system of equations will have (by graphing *and* solving algebraically):

a) Infinitely many solutions

b) No solution