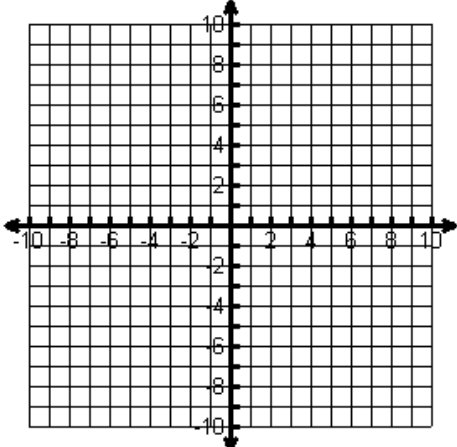
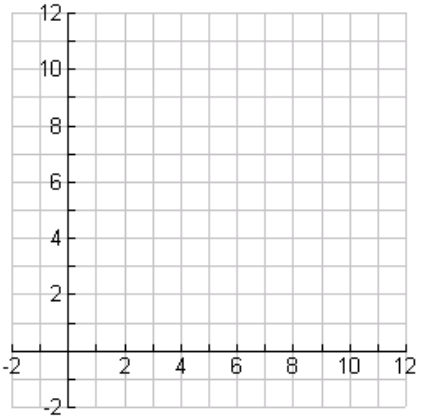


Find the solution of the linear system graphically. Write your solution in the blank provided.

<p>1) _____ $y = -x + 3$ $y = x + 1$</p> 	<p>2) _____ $y = -2x + 7$ $-3x + 6y = 12$</p> 
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Use substitution to solve the linear system. SHOW ALL WORK.

<p>3) _____ $y = 2x - 2$ $6x + 2y = 16$</p>	<p>4) _____ $4x - y = -6$ $y = 2x + 2$</p> <p style="text-align: right;">a) $(-\frac{4}{3}, -\frac{1}{2})$ b) $(-2, -2)$ c) $(-\frac{2}{3}, \frac{10}{3})$ d) $(2, -2)$</p>
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Use elimination to solve the linear system. SHOW ALL WORK.

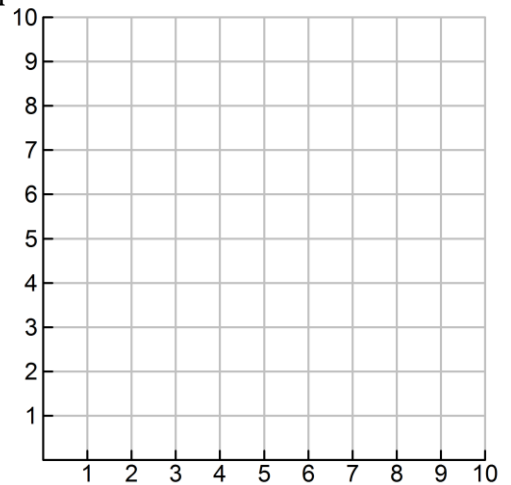
<p>5) _____ $5x - 3y = 7$ $x + 3y = 5$</p>	<p>6) _____ $-3x + 3y = -9$ $6x + 2y = 2$</p> <p style="text-align: right;">a) $(1, -2)$ b) $(2, -1)$ c) $(1, 2)$ d) $(-2, 1)$</p>
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7) A store sold 32 pairs of jeans for a total of \$1050. Brand A sold for \$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) $a = \frac{3c-b}{4}$

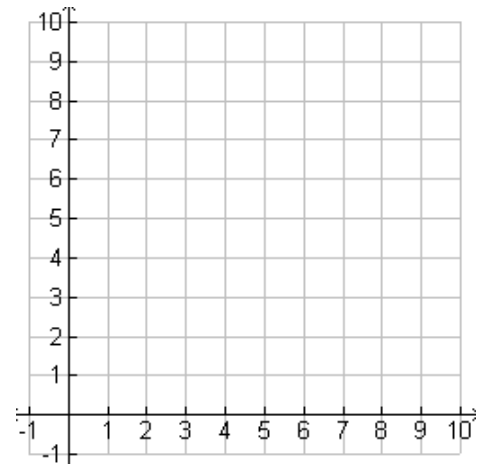
d) $a = 3b - c$

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