SHOW ALL WORK to receive full credit.

Graph the following inequalities on the number line. (2 points each)

1. $x \leq -2$

-5 0 5

2. x > 0

←-5
0
5

 $3. \quad 3 \leq x$

4. 1 > x

◄-5
0
5

Solve and graph the following inequalities on the number line. (4 points each)

5. $x - 4 \ge 1$

←-5
0
5

6. -2x - 3 < 5

7. 8x - 3 < 4x - 11

◆-5
0
5

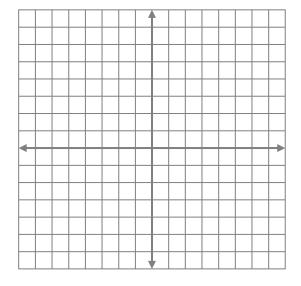
8. $-3(x-5) \ge 2x + 5$

On the same grid, graph the line and label your lines a-c. (4 points each)

9. Line "a"
$$y = -\frac{1}{3}x + 6$$

10. Line "b"
$$y = \frac{5}{2}x - 2$$

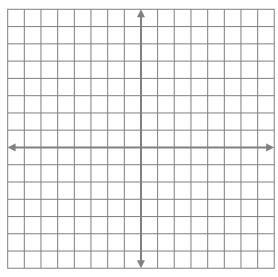
11. Line "c"
$$y = -3x$$



Graph both lines and label the point of intersection: (6 points: 2 pts. per line, 2 pts. for intersection.)

12.
$$y = 2x - 2$$
 and $y = -\frac{1}{2}x + 3$

Point of intersection:



Solve the following equation. Show all work. Answer must be reduced to lowest terms. Answer may be given as an improper fraction or a mixed number. (4 points each)

13.
$$\frac{2x+4}{-3} = \frac{x-2}{4}$$

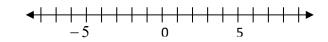
14.
$$-6(3x - 5) + 6 = 7 - (4x + 9)$$

SHOW ALL WORK to receive full credit.

Graph the following inequalities on the number line. (2 points each)

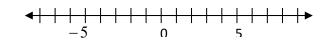
1.
$$x \le -3$$

2.
$$x > 2$$

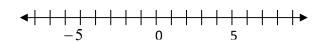


Solve and graph the following inequalities on the number line. (4 points each)

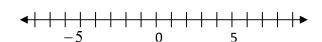
3.
$$x + 5 \ge 1$$



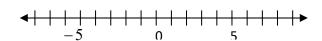
4.
$$-4x + 1 > 5$$



5.
$$-3x + 5 < 2x - 10$$



6.
$$6(2x+5) \ge 6x+18$$



Use PEMDAS to simplify the following expressions. (3 points each)

7.
$$26 - 2 \cdot 8 + 3 =$$

8.
$$(4+9) \cdot 4 =$$

9.
$$14 - 12(5 - 1) =$$

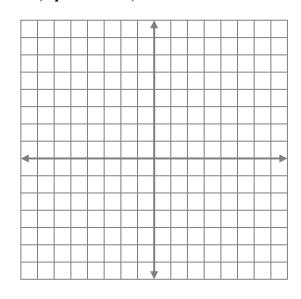
10.
$$16 + 16 \div 8 \cdot 4 =$$

On the same grid, graph the line and label your lines a-c. (4 points each)

11. Line "a"
$$y = -\frac{3}{4}x - 5$$

12. Line "b"
$$y = \frac{1}{4}x + 3$$

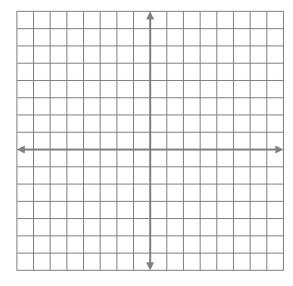
13. Line "c"
$$y = -x + 4$$



Graph both lines and label the point of intersection: (6 points: 2 pts. per line, 2 pts. for intersection.)

14.
$$y = x + 4$$
 and $y = -\frac{4}{3}x - 3$

Point of intersection:



SHOW ALL WORK to receive full credit.

Graph the following inequalities on the number line. (2 points each)

1. $x \leq -5$

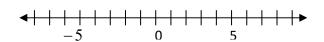
◄-5
0
5

2. 3 < x

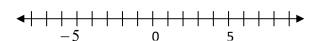
◄-5
0
5

Solve and graph the following inequalities on the number line. (4 points each)

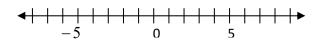
3. $6x - 5 \ge 13$



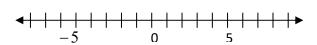
4. -4x - 2 > -18



5. $3(4+7x) \ge 6(3x+6)$



6. 8 - 3x - 10 + 5x < 6x - 9 + x - 3



Use PEMDAS to simplify the following expressions. (3 points each)

7.
$$4 + 18 \div 2 \cdot 3 =$$

8.
$$6 + 2^3 - 14 \div 2 =$$

9.
$$7^2 - (9-6)^2 \cdot 4 =$$

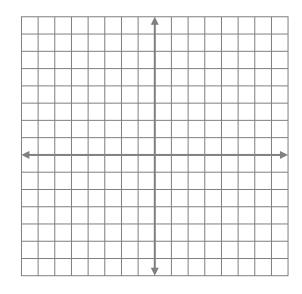
10.
$$(5 - (4 - 10) + 9) \div 2 + 3 =$$

On the same grid, graph the line and label your lines a-c. (4 points each)

11. Line "a"
$$y = -\frac{4}{3}x + 7$$

12. Line "b"
$$y = 3x + 1$$

13. Line "c"
$$y = -x - 2$$



Graph both lines and label the point of intersection: (6 points)

14.
$$y = -2x - 1$$
 and $y = \frac{2}{3}x + 7$

Point of intersection:

