

Math 11:

Review of Math 10: $y = mx + b$

Homework

Name: _____

Date: _____ Block: _____

1. Identify the slope and y intercept for the following relations:

a) $y = 3x - 8$

Slope: _____

y -int: _____

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

Slope: _____

y -int: _____

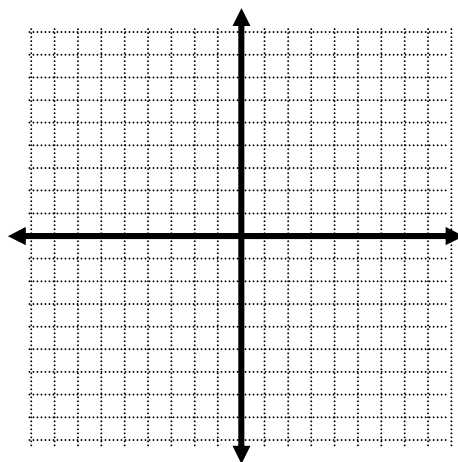
c) $x - y = 9$

Slope: _____

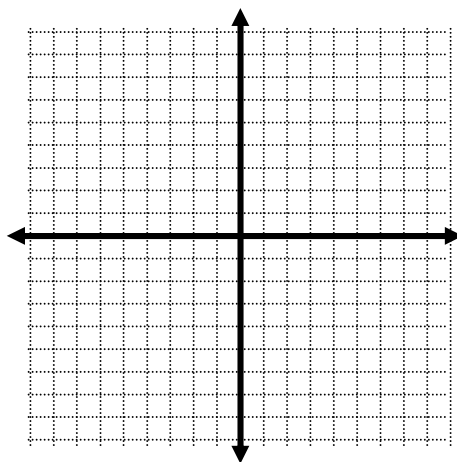
y -int: _____

2. Use the slope and y intercept to graph the equation

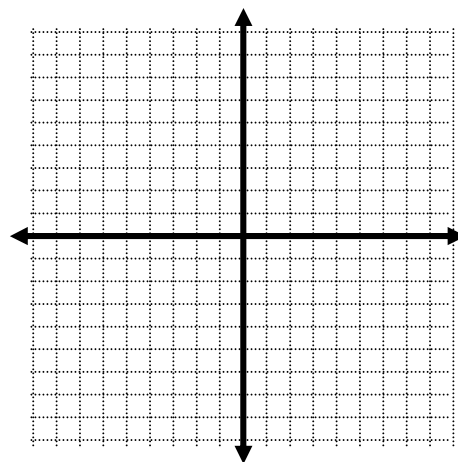
a) $y = 2x + 3$



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



c) $y = 3x - 4$



3. Check a point on the graph by substituting x and y coordinate in the y = equation to verify the coordinates fit the equation. Show work.

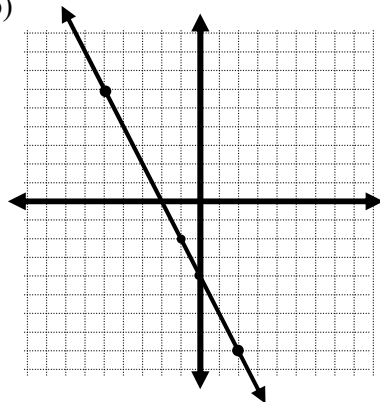
a)

b)

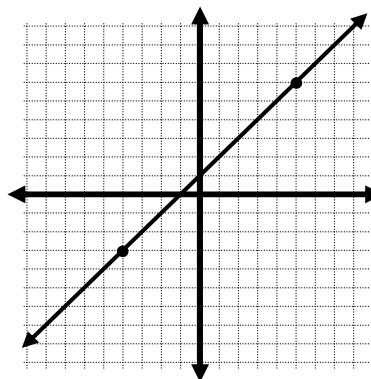
c)

4. Find the equation of the lines

a) b)



Equation: _____

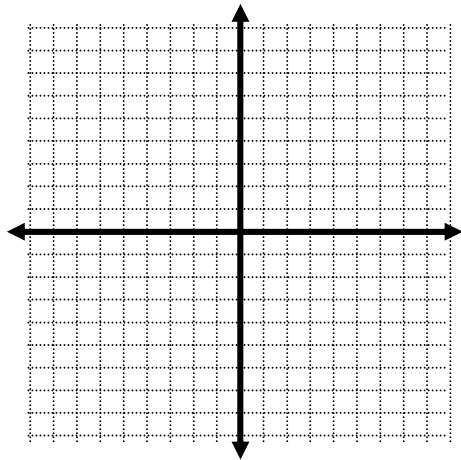


Equation: _____

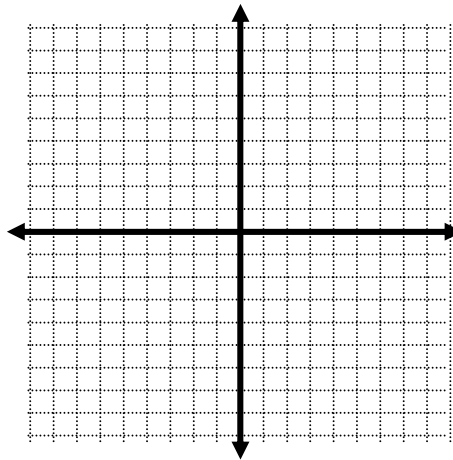
5. Given two points on the line, graph the line and determine the equation of the line.

Steps: i) find slope, ii) substitute x , y and m into the $y = mx + b$ equation and solve for b .

a) Points at (3, 4) and (6, 7)



b) Points at (-5, -4) and (0, 2)



6. Given two points on the line, graph the line and determine the equation of the line.

a) A(3, 9) and B(-4, -5)

b) A(2, 8) and B(-4, -4)

c) A(-1, 0) and B(8, 4)

d) A(3, -4) and B(-6, 2)

7. The data is for the relationship of the amount of oxygen that is consumed as a person exercises.

Find the slope and y – int and determine the equation of the relationship

Minutes of exercise	Vol. Of O_2 consumed (L)
10	550
14	750
17	900

8. Write the equation of the line in Point – Slope Form.

a) A(-1, 7) and B(-4, 5)

b) A(-2, 0) and B(5, -4)

Answers:

1. (a) slope = 3, y -int = -8, b) slope = $-\frac{3}{4}$, y -int = 2, c) slope = 1, y -int = -9, 4. (a) $y = -2x - 4$, b) $y = x + 1$, 5. (a) $y = x + 1$, b) $y = \frac{6}{5}x + 2$, 6. (a) $y = 2x + 3$, b) $y = 2x + 4$, c) $y = \frac{4}{9}x + \frac{4}{9}$, d) $y = -\frac{2}{3}x - 2$, 7. Vol of $O_2 = 50(\text{minutes exercised}) + 50$, 8. (a) $y = \frac{2}{3}(x + 1) + 7$ OR $y = \frac{2}{3}(x + 4) + 5$, (b) $y = -\frac{4}{7}(x - 5) - 4$ $y = -\frac{4}{7}(x + 2) + 0$