Grima MAT 151   Chapter 2 practice test with hypothetical point values

1) Use Algebra to find the x and y-intercepts.
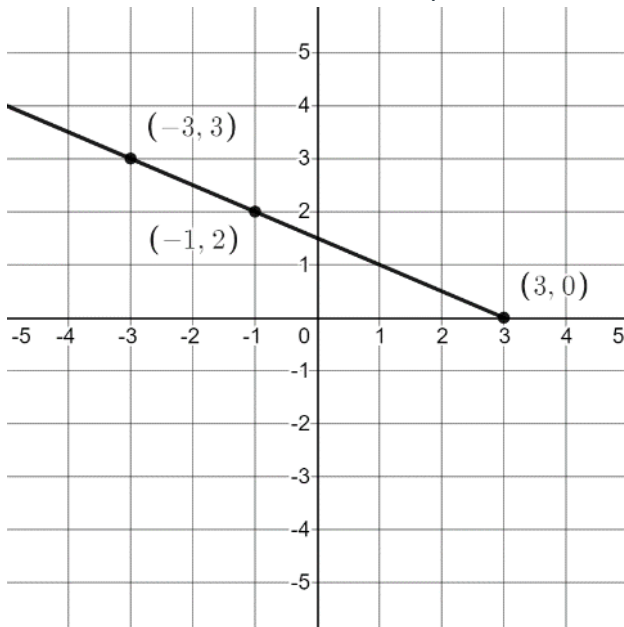
$3x - 9y = 36$ (6 points)

2) Use Algebra to find the x and y-intercepts.

$y = x^2 + 4x - 12$ (8 points)

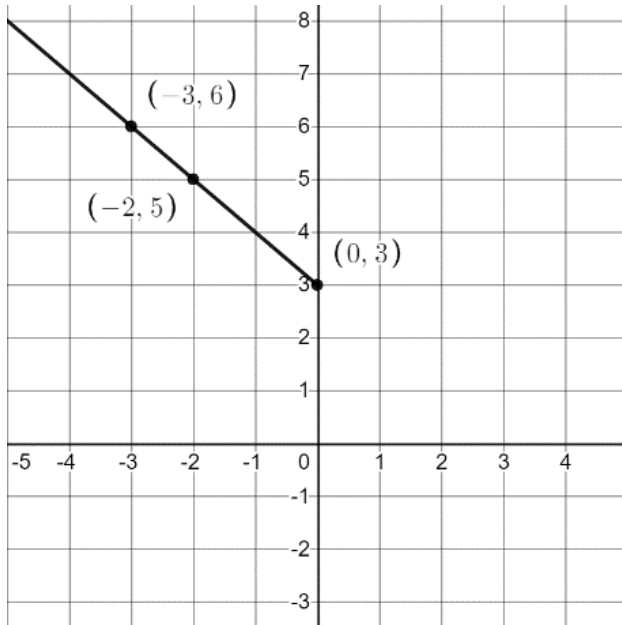3) Draw a complete graph so that it has **X-AXIS** symmetry. (5 points)
Make sure to label all "mirrored points" *labeled points are* $(-3,3)$ $(-1,2)$ $(3,0)$
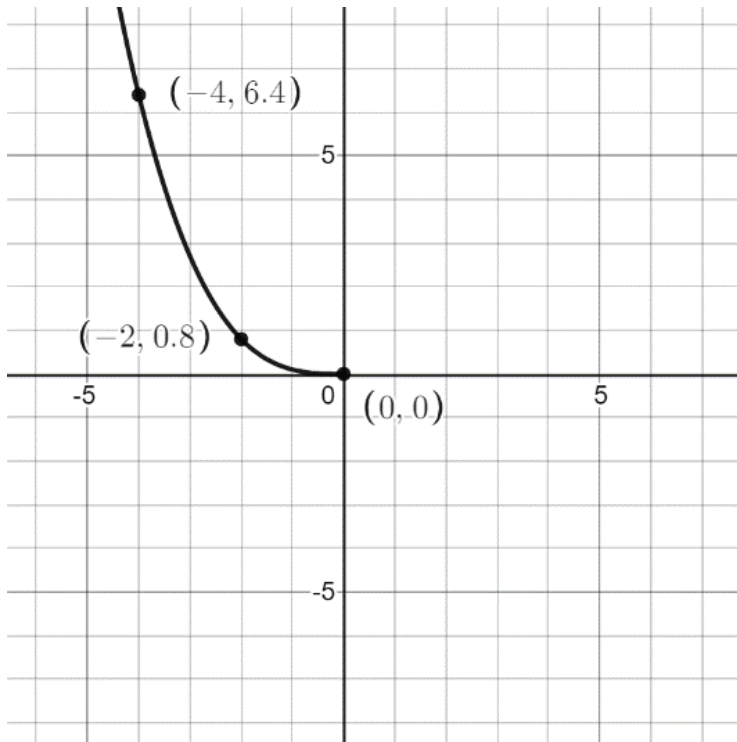

mirrored points_____

4) Draw a complete graph so that it has **Y-AXIS** symmetry. (5 points)
Make sure to label all "mirrored points" *labeled points are* (−3,6) (−2,5) (0,3)

5) Draw a complete graph so that it has **origin** symmetry. (5 points)
Make sure to label all "mirrored points" (labeled points are (−4,6.4) (−2,0.8) (0,0)

mirrored points_____

6) Find the slope of the line that passes through the two points. (6 points)
First point $(2, -8)$ Second point $(3, -5)$

7) $y = \frac{5}{2}x - 1$ (6 points)

a) Find the slope of the given line
b) Find the slope of all lines parallel to the given line

c) Find the slope of all lines perpendicular to the given line.

8) Use the method of your choice (point slope form or slope intercept form) to find the equation of a line with slope m, passing through the point (x, y). Write your answer in slope-intercept form. (8 points)

$Slope \ m = -2 \ point \ (4, -3)$

9) Use the method of your choice (point slope form or slope intercept form) to find the equation of a line passing through the points $(7,2) \ and \ (5,10)$ Write your answer in slope-intercept form. (10 points)

10) Find the equation of the vertical line passing through the point (3,5). (5 points)

11) Find the equation of the horizontal line passing through the point (3,5). (5 points)

12) Write the standard form of the equation of the circle with the given radius (r) and center (h,k):   (7 points)
r = 4   (h,k) = (3, -5)

13) Find the standard form of the equation of the circle with: (8 points) Center (5, 1) contains the point (11, 9)

14) $x^2 + 6x + y^2 - 4y = -4$ (4 points each part 16 total points)

a) Rewrite so that the equation is written in the standard form of a circle.

b) Identify the center of the circle

c) Identify the radius of the circle

d) Sketch a graph of the circle.