Name: \_\_\_\_\_

## Problem Set 2.1

1) Write the equation that is graphed in point slope, slope intercept, and standard form.



2) Write the equation of the line that is **PERPENDICULAR** to the line 3x - y = 8 and passes through the point (-7, 4) in **POINT SLOPE FORM**. Box your final answer.



3) Write the equation of the line that contains the points (-5,2) and (-4, 1) in **SLOPE INTERCEPT FORM**. Box your final answer. Then graph the line.\_\_\_\_\_t



4 – 6] Graph the quadratic functions by graphing their vertex and at least two other points. Give their axis of symmetry, vertex, y intercept, domain, and range.

Axis of Symmetry: \_\_\_\_\_ Vertex: \_\_\_\_\_ y-intercept: \_\_\_\_\_ D: \_\_\_\_\_ R: \_\_\_\_\_ 5)  $g(x) = x^2 - 10x + 25$ Axis of Symmetry: \_\_\_\_\_ Vertex: \_\_\_\_\_ y-intercept: \_\_\_\_\_ D: \_\_\_\_\_ R: \_\_\_\_\_ 6) f(x) = 3(x - 1)(x + 5)Axis of Symmetry: \_\_\_\_\_ Vertex: \_\_\_\_\_ y-intercept: \_\_\_\_\_

D: \_\_\_\_\_\_ R: \_\_\_\_\_

4)  $f(x) = -2(x + 3)^2 - 4$