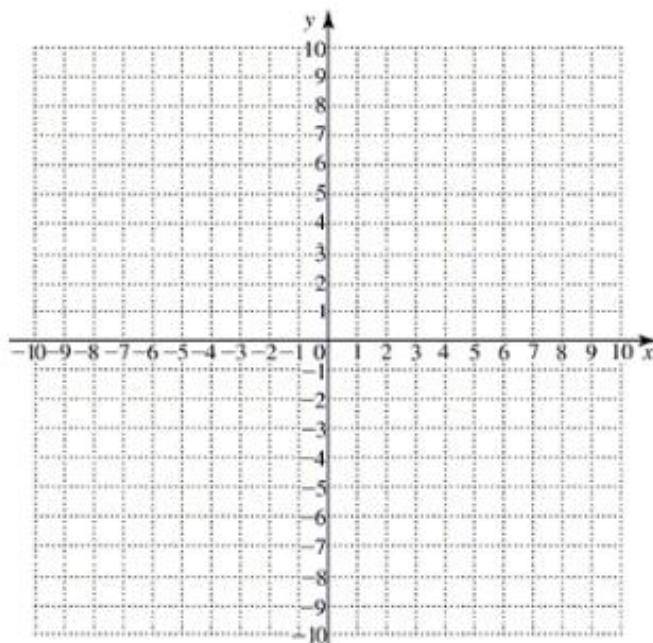**Week 3 Quiz Section 3.3,A.7, 3.5**   Name_____

Please show all work. Problem Worth 10 Point each. Total Point Test 50 Point

Solve the inequality. Graph is provided if you want to solve graphically.

1) $2x^2 - 6 < -4x$

Answer_____

Solve the problem.

2) The manufacturer of a CD player has found that the revenue R (in dollars) is

$R(p) = -5p^2 + 1320p$, when the unit price is p dollars. If the manufacturer sets the price p to maximize revenue, what is the maximum revenue to the nearest whole dollar?

Answer(Maximum Revenue to nearest whole dollar)_____

3.) Determine the quadratic function whose graph is given. You must state your answer in <mark>standard form</mark>. (Worth 10 Points)
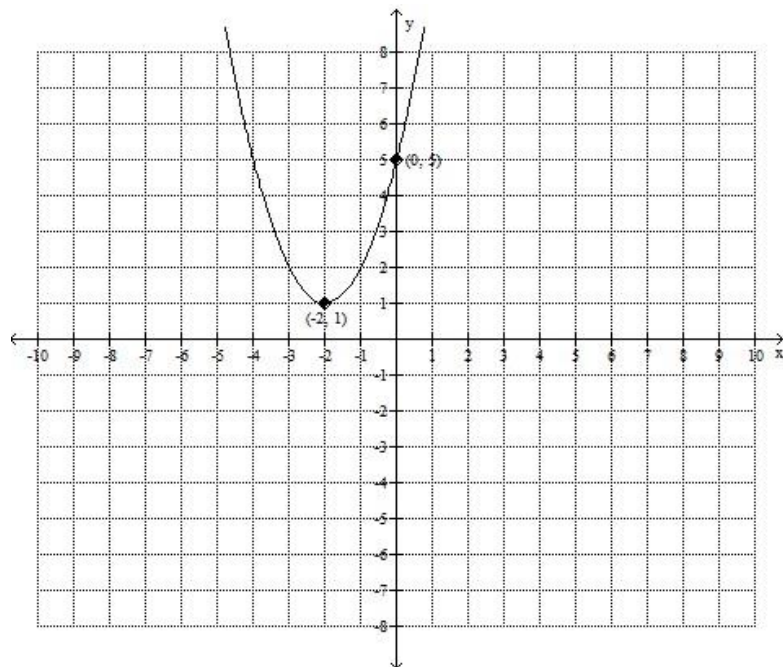
Answer:_____

4.) Solve the quadratic Equation.

$16x^2 - 5x + 1 = 0$

Answer:_____

5.) For the following quadratic function: find the vertex (as a coordinate pair), axis of symmetry, maximum or minimum value, domain and range (in interval notation), intercepts (as coordinates), identify increasing and decreasing region, and finally graph.

$$f(x)=x^2+3x-5$$

a. Vertex: _____

b. Axis of Symmetry: x = _____

c. Maximum   or   Minimum   (circle the right answer)   Max or Min Value: _____

d. Domain (interval notation) = _____

e. Range (interval notation) = _____

f. x-intercept(s) = _____

g. y-intercept = _____

h. increasing region = _____

i. decreasing region = _____

GRAPH