Name:_____ Prd:_____

QUADRATICS - Review

Directions: Write the function in vertex form. Then state the vertex.

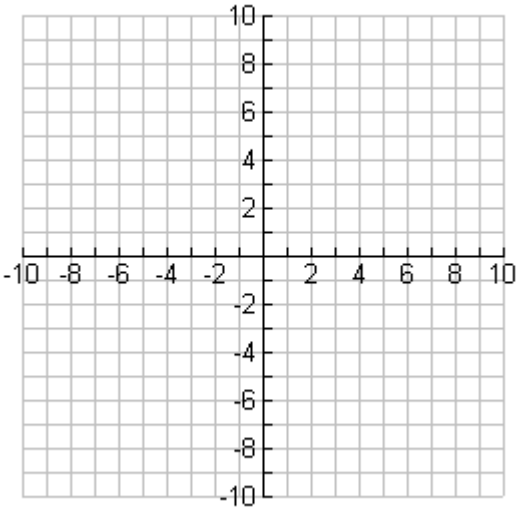
1) $f(x) = x^2 - 6x + 11$

2) $f(x) = x^2 + 4x - 15$

3. $f(x) = x^2 + 8x - 3$

For the problems below, make sure your answers are in the right format (point, equation of line, number, …)
Find the information below then sketch the graph:

4. $f(x) = (x-1)^2 - 5$



Which way does it open?_____

Has a MAX or MIN?_____

Value of _____

Vertex: _____

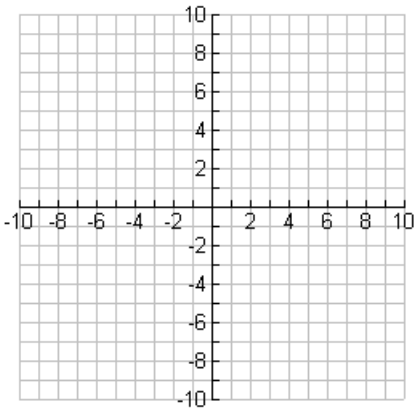
Axis of Symmetry:_____

Domain(INT)_____ Range(INT)_____

(SET)_____ (SET)_____

4b) Write the function in standard form: _____

5. $f(x) = x^2 + 6x + 5$



Which way does it open?_____

Has a MAX or MIN?_____

Value of _____

Vertex: _____

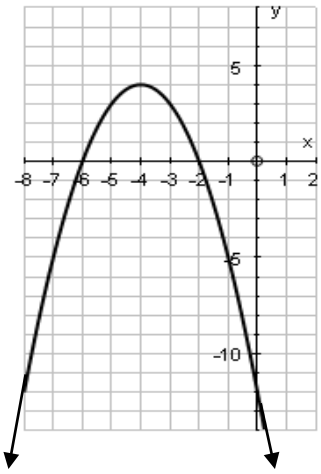
Axis of Symmetry:_____

Domain(INT)_____ Range(INT)_____

(SET)_____ (SET)_____

5b) Write the function in vertex form. Start by finding $x = \frac{-b}{2a}$: _____

6. Here's a graph…tell me the info:



Which way does it open?_____ Max / Min value:_____

Has a MAX or MIN?_____ y-intercept:_____

Vertex: _____ x-intercepts:_____

Axis of Symmetry:_____ Given that a = -1, write the equation in vertex form:

_____

Domain:_____ Range:_____

SET:_____ SET:_____

Write each function in standard form.

7) $f(x) = 3(x+1)^2 - 4$	8) $y = -2(x+2)(x-7)$

Name:_____ Prd:_____

9. Factor each of the following.

a) $3x^3 + 27x^2 - x - 9$

_____

b) $2x^2 + x - 6$

_____

c) $5x^2 - 12x + 4$

_____

d) $2x^2 - 4xy - 16y^2$

_____

e) $81x^2 - 16$

_____

f) $3x^2 - 7x - 6$

_____

g) $x^2 + 4$

_____

h) $2x^3y^2 - 2xy^2$

_____

i) $3x^2 - 11x - 20$

_____

j) $x^2 + 9x - 36$

_____

k) $3x^3 + 3x^2 - 36x$

_____

10. Find the following information for the quadratic function $f(x) = -4x^2 + 8x - 5$.

Vertex is_____ **Min** or **Max**? Value of_____ **Domain**(INT):_____

SET:_____

Range(INT):_____

SET:_____