Name: _____ Hour: _____ Date: _____

Complex Radicals Practice

Simplify each expression.

1) $\sqrt{-36}$

2) $\sqrt{-72}$

3) $\sqrt{-4}$

4) $\sqrt{-80}$

5) $\sqrt{-28}$

6) $2\sqrt{-25}$

7) $3\sqrt{-12}$

8) $5\sqrt{-100}$

9) $\sqrt{-50}$

10) $\sqrt{-1000}$

11) $\sqrt{-64}$

12) $\sqrt{-128}$

Solve the following. Reduce, if necessary. Make sure that your answer is in simplest radical form.

13) $5x^2 + 8x + 5 = 0$	14) $2x^2 - 6x + 7 = 0$
15) $3x^2 + 21 = -60$	16) $(x + 7)^2 + 15 = -57$

Graphing Practice: Sketch a graph of the following quadratic function.

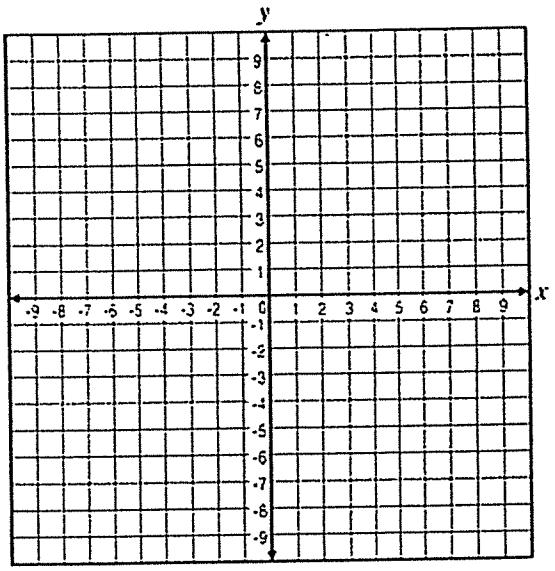
17) $f(x) = -2x^2 + 4x - 4$

y-intercept:

axis of symmetry:

additional point:

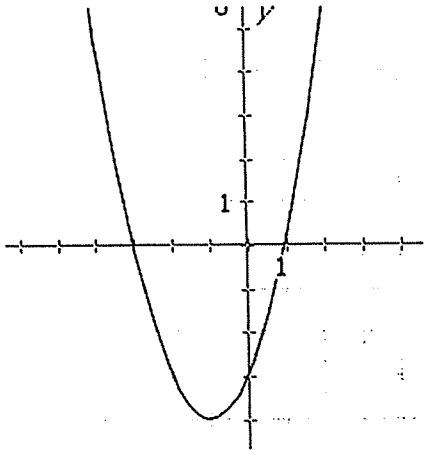
vertex:



Comparing Functions Practice

18) Use the following representations to answer parts (a) – (c).

$f(x) = 2x^2 - 8x + 6$	$g(x)$ can be represented by the following graph:	The following table contains some of the points for the function $h(x)$.



X	Y
-7	5
-6	0
-5	-3
-4	-4
-3	-3
-2	0
-1	5
0	12
1	21

(a) Find the vertex of each representation

$f(x)$:

$g(x)$:

$h(x)$:

(b) Classify each vertex as either a max or a min.

$f(x)$:

$g(x)$:

$h(x)$:

(c) Which function has the least (smallest) min?