_____ and today is ______ in ____ hour.

	Match each with the correct descr	ription(s). There is a blank for each answer you should have.
CONCEPTUAL VOCABULARY & MATHEMATICAL REASONING	$ \begin{array}{c} \underline{} & \text{in } f(x) = a(x - h)^2 + k \\ \underline{} & \underline{} h \text{ in } f(x) = a(x - h)^2 + k \\ \underline{} & \underline{} k \text{ in } f(x) = a(x - h)^2 + k \\ \underline{} & \text{vertex form of a quadratic} \\ \underline{} & \text{parabola} \\ \underline{} & \underline{} & \text{vertex of a parabola} \\ \end{array} $	C. indicates a vertical stretch/shrink and/or a vertical reflection D. indicates a horizontal stretch/shrink and/or a horizontal reflection E. indicates vertical (up/down) shift F. indicates horizontal (left/right) shift G. $f(x) = a(x - h)^2 + k$ H. $f(x) = ax + b$ J. "U" shaped graph of a quadratic function K. maximum or minimum of a quadratic graph L the point (h, k) in the function, $f(x) = a(x - h)^2 + k$ M. $f(x) = ax^2 + bx + c$ N. none of these is correct

For each of the following functions, determine any transformations from the parent function $f(x) = x^2$ and circle ALL that apply

$a(x) = 3(x+17)^2$	translation right	translation left	translation up	translation down	vertical stretch or shrink	vertical reflection
$l(x) = -19x^2 - 47$	translation right	translation left	translation up	translation down	vertical stretch or shrink	vertical reflection
$g(x) = \left(x - 31\right)^2 + 62$	translation right	translation left	translation up	translation down	vertical stretch or shrink	vertical reflection
$l(x) = -64x^2 - 19$	translation right	translation left	translation up	translation down	vertical stretch or shrink	vertical reflection
$g(x) = \left(x - 25\right)^2 + 83$	translation right	translation left	translation up	translation down	vertical stretch or shrink	vertical reflection
$a(x) = 4\left(x+11\right)^2$	translation right	translation left	translation up	translation down	vertical stretch or shrink	vertical reflection

	The parent function $f(x) = x^2$ is graphed. Graph the function $g(x) = (x - 4)^2 - 3$.				
- REASONING	Vertex (,) and label on gra	ph <u>at least FIVE POINTS</u> .		
HEMATICA	x	У	Point (x, y)		
& MATH			(,)		
DURAL			(,)		
ROCEI			(,)		
PF			(,)		
			()		





I am ___



Algebra 2 STANDARD ~ Chapter 2 Review - Part 2 (2.3-2.4)



2.) Sketch a graph of the quadratic functions below. Then, write an equation for each of the parabolas. *Make sure to clearly label the vertex, focus, axis of symmetry, and directrix.*



3.) Given the coordinates below, write 3 equations in standard form that can be used to solve a system of equations. <u>You</u> <u>do not have to solve the system, just write the equations!</u>

a.)	(1,3)	(2, -7)	and (4	4,20)
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b.)	Time, x	0	2	4	6
	Baseball height, y	6	22	22	6

Equation/Information/Graph		Which way does the parabola open?		Is the axis of symmetry horizontal or vertical?	Is the directrix horizontal or vertical?
4.)	Focus is at (-5, 0) Directrix is at <i>x</i> = 5	Up Left	Down Right	Horizontal Vertical	Horizontal Vertical
5.)	$y = \frac{1}{4}(x-7)^2 - 5$	Up Left	Down Right	Horizontal Vertical	Horizontal Vertical
6.)		Up Left	Down Right	Horizontal Vertical	Horizontal Vertical
7.)	$x = \frac{1}{3}(y+4)^2 - 6$	Up Left	Down Right	Horizontal Vertical	Horizontal Vertical
8.)		Up Left	Down Right	Horizontal Vertical	Horizontal Vertical
9.)	Focus is at (0, -3) Directrix is at <i>y</i> = 3	Up Left	Down Right	Horizontal Vertical	Horizontal Vertical