

Name: _____

Date: _____

Comparing Quadratic Function Forms Sheet

	$y = ax^2 + bx + c$	$y = a(x - r_1)(x - r_2)$	$y = a(x - h)^2 + k$
NAME			
IDENTIFIABLE FEATURES			

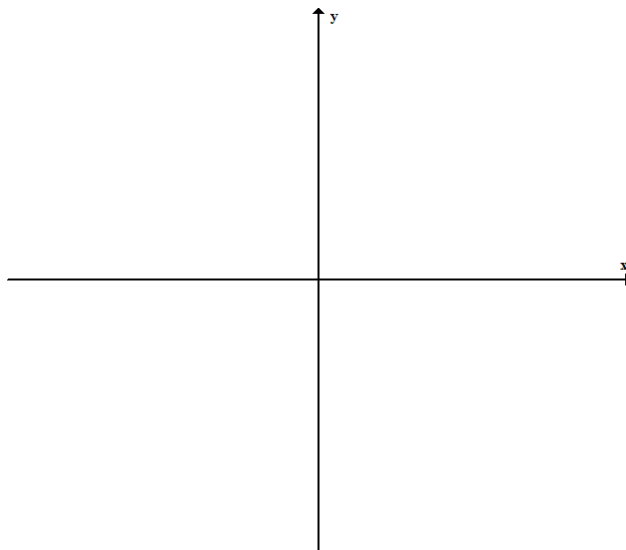
Below are the three equivalent equations for the graph of a quadratic function. Name each form and identify the feature(s) of the graph that are easily revealed by that feature.

$y = 2(x - 4)(x + 2)$

$y = 2x^2 - 4x - 16$

$y = 2(x - 1)^2 - 18$

Sketch the graph of the quadratic function (parabola) on the grid to the right using the important features. Be sure to mark and label the important features on the graph.



During this unit, we have also learned multiple ways to solve quadratic equations: graphing, using square roots, and factoring. In the box below are various forms of quadratic equations. Write each equation in the appropriate column where you think that particular equation would be "easiest" to solve.

NOTE: You do not actually need to solve any of the equations.

$$0 = (x - 5)(x + 3)$$

$$(x - 5)^2 = 0$$

$$0 = x^2 - 10x + 25$$

$$30 = 4x^2 + 5$$

$$x^2 + 12x + 37 = 10$$

$$18 = (x - 5)^2$$

$$4.5x^2 - 10x + 20 = 0$$

$$8 = x^2 + 9x + 15$$

$$x^2 + 5x + 6 = 0$$

$$2x^2 - 9 = 16$$

$$-16(x^2 + 4x + 5) = 0$$

$$(x - 6)(x + 10) = 15$$

GRAPHING	SQUARE ROOTS	FACTORING