

Matching Activity:

1. Select a vertex form equation to start with.
2. Match the vertex form equation to the standard form equation by EXPANDING vertex form. You must show your work for this.
3. Match the vertex form and standard form equations to the graph of the quadratic function.
4. List the transformations from the parent function $y = x^2$.
5. Repeat steps 1 – 4 for all 16 equations.
6. List the equations that are perfect squares in the space below.

This assignment will be graded for accuracy and must be turned in at the conclusion of class on Friday (10/17) or by 7:25 am on Monday (10/21).

Set D Equations in Vertex Form

$y = x^2 - 3$	$y = 2(x - 1)^2 - 2$	$y = -2(x - 1)^2 + 3$	$y = x^2 + 3$
$y = -2(x + 4)^2 - 1$	$y = \frac{1}{2}x^2$	$y = 4(x - 1)^2$	$y = (x + 3)^2$
$y = 2x^2$	$y = (x + 1)^2 + 2$	$y = -(x + 3)^2$	$y = -x^2 - 3$
$y = x^2$	$y = (x - 3)^2$	$y = -x^2$	$y = -x^2 + 3$

Set D Equations in Standard Form

$y = -2x^2 + 4x + 1$	$y = \frac{1}{2}x^2$	$y = -x^2 - 6x - 9$	$y = x^2 + 2x + 3$
$y = x^2$	$y = -2x^2 - 16x - 33$	$y = -x^2 - 3$	$y = -x^2$
$y = x^2 + 6x + 9$	$y = x^2 - 6x + 9$	$y = -x^2 + 3$	$y = 2x^2$
$y = x^2 - 3$	$y = x^2 + 3$	$y = 2x^2 - 4x$	$y = 4x^2 - 8x + 4$

Set D: Graph Quadratic Equations with a = anything

