

Solve each equation.

5.  $y = 2(x - 3)^2 + 8$  (square roots)

6.  $y = 2x^2 + x - 10$  (factor and zero prod)

7.  $y = x^2 - 14x + 1$  (complete the square)

8.  $y = x^2 - 2x + 5$  (quadratic formula)

## SOLVING: WHICH METHOD SHOULD YOU USE?

Explain why!

	<b>Equation</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
1	$x^2 + 4x + 3 = 0$	Sq. Roots	Factor/ZPP	Complete Sq.	Quad. Form
2	$5x^2 - 1 = 6$	Sq. Roots	Factor/ZPP	Complete Sq.	Quad. Form
3	$x^2 - 7x + 1 = 0$	Sq. Roots	Factor/ZPP	Complete Sq.	Quad. Form
4	$x^2 + 10x + 4 = 0$	Sq. Roots	Factor/ZPP	Complete Sq.	Quad. Form
5	$x^2 - 14x = 5$	Sq. Roots	Factor/ZPP	Complete Sq.	Quad. Form
6	$5 - 3x^2 = 20$	Sq. Roots	Factor/ZPP	Complete Sq.	Quad. Form
7	$x^2 + x = 10$	Sq. Roots	Factor/ZPP	Complete Sq.	Quad. Form
8	$x^2 - 4x - 12 = 0$	Sq. Roots	Factor/ZPP	Complete Sq.	Quad. Form

## SECTION 3: GRAPHING

Find the vertex of each quadratic function:

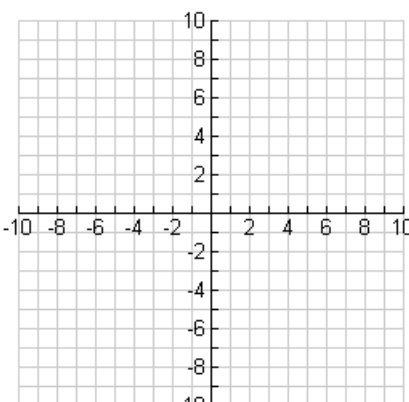
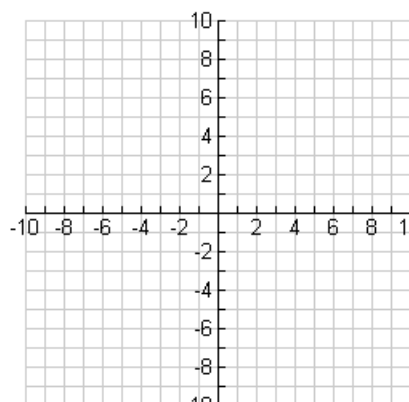
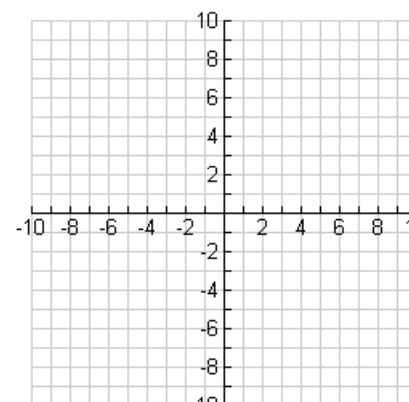
1. $f(x) = (x + 2)^2 + 5$	(      ,      )	2. $f(x) = -2x^2 - 3$	(      ,      )
3. $f(x) = (x - 1)^2$	(      ,      )	4. $f(x) = 5x^2$	(      ,      )
5. $f(x) = (x + 10)(x - 2)$	(      ,      )	6. $f(x) = x^2 + 2x + 5$	(      ,      )
7. $f(x) = 2(x - 5)(x + 3)$	(      ,      )	8. $f(x) = 2x^2 + 8x + 5$	(      ,      )

9.  $y = -3(x - 1)^2 + 10$                       Opens Up or Opens Down                      Stretched, Shrink, Standard

10.  $y = (x + 4)^2 + 4$                       Opens Up or Opens Down                      Stretched, Shrink, Standard

11. Name 3 synonyms for "solution": \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

Graph.

<p>12. <math>y = 2(x + 5)^2 - 3</math></p> 	<p>13. <math>y = -\frac{1}{2}(x + 5)(x - 3)</math></p> 	<p>14. <math>y = x^2 + 4x - 6</math></p> 
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