

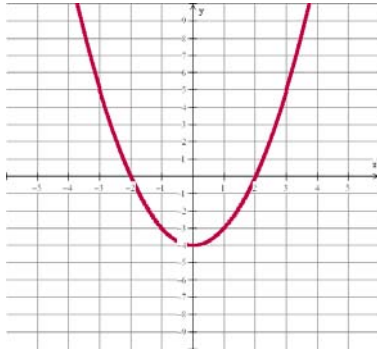


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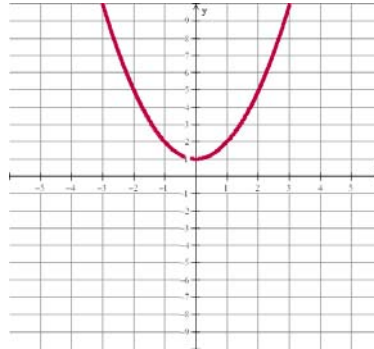
### SOLVING QUADRATICS WORKSHEET #1

**Solve by Graphing:** Solve each quadratic equation. For Problems 1-3, graphs have been provided for you. For problems 4-6, you must graph the quadratic equation first, then use your graph to solve.

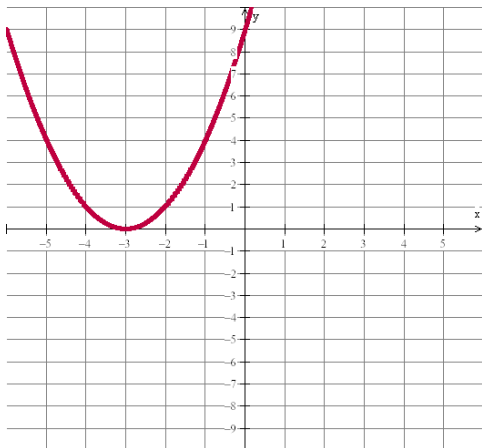
1.  $x^2 - 4 = 0$



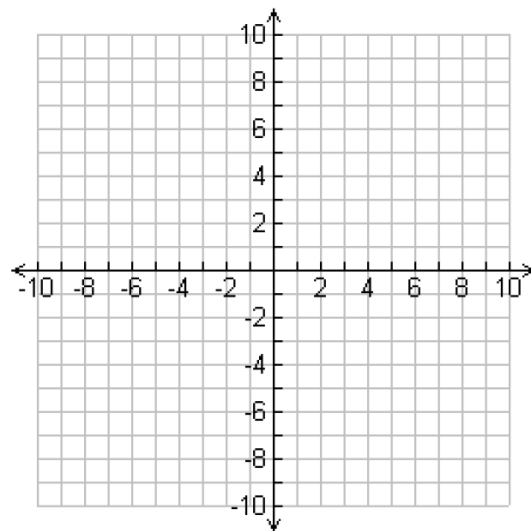
2.  $x^2 - 1 = 0$



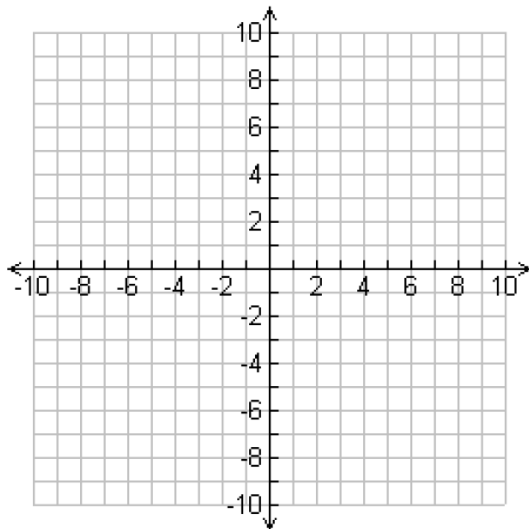
3.  $x^2 + 6x + 9 = 0$



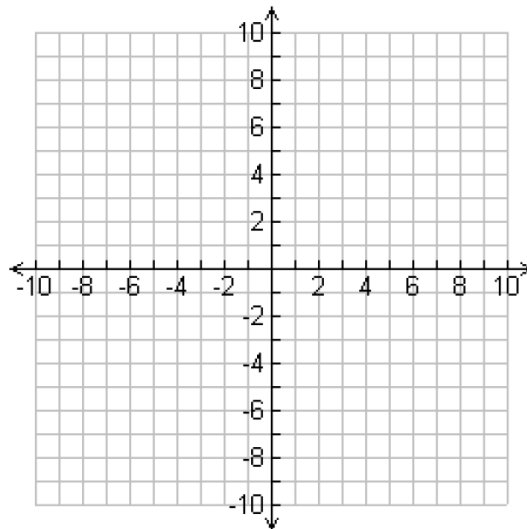
4.  $(x - 3)^2 + 1 = 0$



5.  $x^2 - 10x + 24 = 0$



6.  $\frac{1}{2}(x - 1)^2 - 2 = 0$



**Solve by Factoring:** Solve each quadratic equation by factoring.

**Steps:**

- get the quadratic = 0 and factor completely
- set each factor ( ) = 0 (this means to write two new equations using the zero product property)
- solve for the variable (you sometimes get more than 1 solution)

7.) $x^2 + 7x - 30 = 0$	8.) $(2x - 5)(3x + 8) = 0$	9.) $3x^2 - 2x = 21$
10.) $2x^2 + 8x - 30 = x - 34$	11.) $v(v + 3) = 10$	12.) $2x^2 + x = 15$
13.) $y = 6x^2 - 3x - 63$	14.) $f(x) = 12x^2 + 6x - 6$	15.) $g(x) = 49x^2 - 16$