

Algebra 2

Solving Quadratics

Name: _____

Date: _____ Period: _____

Solve the following problem by the specified method.

A.) GRAPHING

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

Opens: _____

Axis of Symmetry: _____

Vertex: _____

Max/Min: _____

Domian: _____

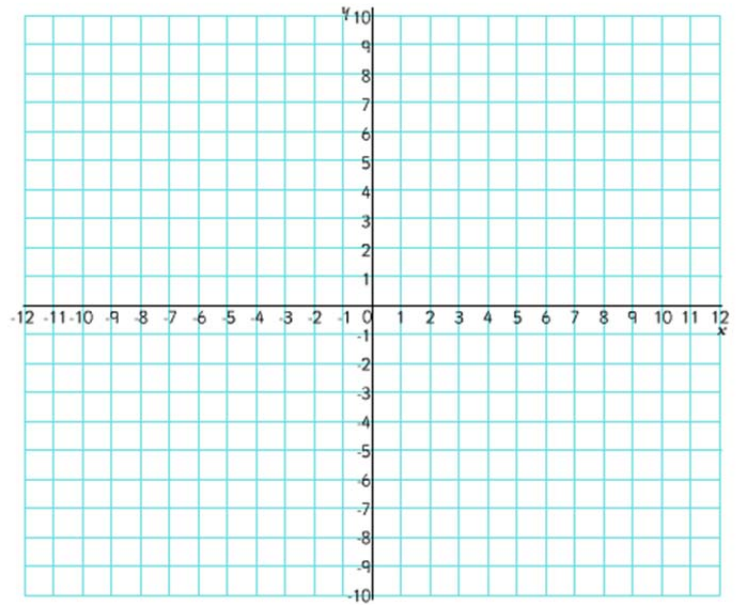
Range: _____

End Behavior:

As $x \rightarrow \infty, f(x) \rightarrow$ _____

As $x \rightarrow -\infty, f(x) \rightarrow$ _____

Zero(s): _____



B.) FACTORING

$$3x^2 + 6x - 1 = 2 - 2x$$

C.) QUADRATIC FORMULA (Simplified & Exact)

$$3x^2 - 9x + 4 = -3 + 3x$$

D.) COMPLETING THE SQUARE

$$4x^2 - 8x + 9 = 3x^2 - 6x - 11$$

E.) SQUARE ROOT METHOD

$$4 - 2(x + 5)^2 = 28$$

Solve each quadratic equation. Method of Choice.

F.) $5x^2 + 4x + 4 = 3x + 2$

G.) $2(x + 5)^2 + 64 = 24$

H.) $5x^2 + 6x - 10 = 4x^2 + 10x$

I.) $3x^2 - 12x + 5 = 2x - 3$
