

Quadratic Formula Notes

AZ

Warm Up

reduce: 1. $\sqrt{40}$

2. $3 \pm \sqrt{50}$


3. $\frac{4 \pm \sqrt{40}}{6}$

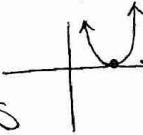
discriminant: tells you how many real roots an equation has.

* make sure your equation is in standard form $y = ax^2 + bx + c$

$b^2 - 4ac$ is the discriminant

3 cases

$b^2 - 4ac > 0$ 2 real roots 

$b^2 - 4ac = 0$ 1 real root 

$b^2 - 4ac < 0$ no real roots



quadratic formula: find the roots (zeros) of a graph

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$