## SOLVING QUADRATICS BY QUADRATIC FORMULA

## ALL QUADRATICS CAN BE SOLVED USING **QUADRATIC FORMULA**

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

- 1. Why does it have ±?
- 2. Where do a,b,c come from?

**MEMORIZE THIS BEFORE ALG 2!** 

STANDARD FORM

$$ax^2 + bx + c$$

## **QUADRATIC FORMULA: DETERMINANT**

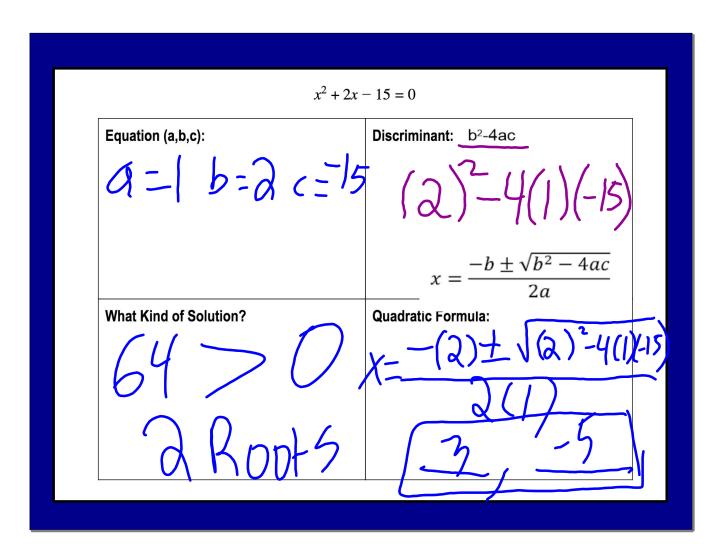
$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Determinant: ype of 100+5. b<sup>2</sup> - 4ac

## **QUADRATIC FORMULA: DETERMINANT**

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

b <sup>2</sup> -4ac > 0 +	2 Roots (AKA: 2 Real Roots)
$b^2 - 4ac = 0$	1 Root (AKA: Double Root)
b <sup>2</sup> - 4ac < 0	0 Roots (AKA: Imaginary Roots)



$2x^2 - 4x + 3 = 0$		
Equation(a,b,c):	Discriminant: b2-4ac	
a= 2	$(-4)^{2}-4(2)(3)$	
D=		
C= /	$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$	
What Kind of Solution?	Quadratic Formula:	
96	$-(-4)+\sqrt{(-4)^2-4(2)(3)}$	
$\Omega$	- $O(2)$	
14 No 190019	almed 2 CQ/	
	Will	