

Fill in the Blanks

The Discriminant

Quadratic Equation	a	b	c	Discriminant	Nature of Solutions
$x^2 + 5x + 3 = 0$	1	5	3	$5^2 - 4 \times 1 \times 3 = 13$	Two real solutions
$3x^2 - 2x + 5 = 0$	3	-2	5		
$x^2 + 4x + 4 = 0$					
$6x^2 + 5 = 0$					
$16 - x - 3x^2 = 0$					
$9x^2 - 2x = 0$					
	5	4	1		
	1	8		44	
		-9	8	-111	
		-12	9		One real solution
$5x^2 + 7x - 3 = 0$	5	7		109	
	-1		-25		One real solution
		6	5	-24	