



Discriminant and Nature of Roots

Name _____

Score _____

RQ:25

Write the discriminant and nature of roots for each quadratic equation.

Q.No	Quadratic Equations	Discriminant	Nature of roots
1)	$x^2 + 2x + 1 = 0$		
2)	$n^2 - n - 5 = 0$		
3)	$6p^2 + 1 = 0$		
4)	$3k^2 - 4k + 2 = 0$		
5)	$4z^2 + z = 0$		
6)	$t^2 - 4t + 4 = 0$		
7)	$5y^2 - 3y - 1 = 0$		
8)	$m^2 + 7m + 8 = 0$		



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Answer key

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Write the discriminant and nature of roots for each quadratic equation.

Q.No	Quadratic Equations	Discriminant	Nature of roots
1)	$x^2 + 2x + 1 = 0$	0	The roots are real and equal.
2)	$n^2 - n - 5 = 0$	21	The roots are real and unequal.
3)	$6p^2 + 1 = 0$	-24	The roots are unreal.
4)	$3k^2 - 4k + 2 = 0$	-8	The roots are unreal.
5)	$4z^2 + z = 0$	-15	The roots are unreal.
6)	$t^2 - 4t + 4 = 0$	0	The roots are real and equal.
7)	$5y^2 - 3y - 1 = 0$	29	The roots are real and unequal.
8)	$m^2 + 7m + 8 = 0$	17	The roots are real and unequal.