

# Quadratic Formula



Definition of  
Function

$$b^2 - 4ac$$

SqareRoot  
Discriminant

Roots  $x_1$  and  
 $x_2$

Stupid  
Questions

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## Definition of Function for 100.



$$3x^2 - 2x - 5 = 0, \quad b = ?$$

3

2

5

-2

-5

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## Definition of Function for 200.



$$-3x^2 + 12x - 4 = 0, \quad c = ?$$

-3

12

4

-4

3

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## Definition of Function for 300.



$$-x^2 - 2x + 5 = 0, \quad a = ?$$

-2

5

1

-1

2

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## Definition of Function for 400.



$$5 - 3x^2 = 2x, \quad b = ?$$

5

3

-3

2

-2

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$b^2 - 4ac$  for 100.

$$x^2 + 4x + 1 = 0, b^2 - 4ac = ?$$

20

16

0

12

4

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$b^2 - 4ac$  for 200.

$$x^2 - 2x - 1 = 0, b^2 - 4ac = ?$$

4

2

0

-4

8

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$b^2 - 4ac$  for 300.

$x^2 - 2x + 1 = 0$ ,  $b^2 - 4ac$  gives

no solution

two different solutions

two different negative solutions

one double solution

two different positive solutions

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$b^2 - 4ac$  for 400.

$-22x^2 + 7x + 100 = 0$ ,  $b^2 - 4ac$  gives

no real solution

complex solutions

triple solutions

one double solution

two different solutions

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SquareRoot Discriminant for 100.

$$x^2 - 2x + 1 = 0, \quad \sqrt{b^2 - 4ac} = ?$$

2

1

0

-1

-2

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## SquareRoot Discriminant for 200.



$$3x^2 + 4x + 1 = 0, \quad \sqrt{b^2 - 4ac} = ?$$

0

1

2

3

4

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SquareRoot Discriminant for 300.

$$2x^2 - 5x + 2 = 0, \quad \sqrt{b^2 - 4ac} = ?$$

0

1

2

3

4

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SquareRoot Discriminant for 400.

$ax^2 - 2x + 1 = 0$  has two solutions when  $\sqrt{b^2 - 4ac}$   
?

$a = 1$

$a = 0$

$a < 1$

$a > 0$

$a > 1$

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Roots  $x_1$  and  $x_2$  for 100.

$$x^2 - 2x - 3 = 0, x_1 = ?, x_2 = ?$$

$$x_1 = 0, x_2 = 0$$

$$x_1 = -1, x_2 = 1$$

$$x_1 = -1, x_2 = 3$$

$$x_1 = -2, x_2 = -3$$

$$x_1 = 2, x_2 = 0$$

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Roots  $x_1$  and  $x_2$  for 200.

$$3x^2 - 2x - 1 = 0, x_1 = ?, x_2 = ?$$

$$x_1 = 2, x_2 = -3$$

$$x_1 = -1/2, x_2 = 1/2$$

$$x_1 = -2/3, x_2 = 2$$

$$x_1 = -1/6, x_2 = 5/6$$

$$x_1 = -1/3, x_2 = 1$$

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Roots  $x_1$  and  $x_2$  for 300.

$$9x^2 - 1 = 0, x_1 = ?, x_2 = ?$$

$$x_1 = 3x_2 = -3$$

$$x_1 = -1, x_2 = 1$$

$$x_1 = -1/2, x_2 = 1/2$$

$$x_1 = -1/3, x_2 = 1/3$$

$$x_1 = -1/9, x_2 = 1/9$$

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Roots  $x_1$  and  $x_2$  for 400.

$$x^2 + x - 1 = 0, x_1 = ?, x_2 = ?$$

$$x_1 = 1x_2 = -1$$

$$x_1 = (-1 - \sqrt{5})/2, x_2 = (-1 + \sqrt{5})/2$$

$$x_1 = -1/2, x_2 = 1/2$$

$$x_1 = -1 - \sqrt{5}, x_2 = -1 + \sqrt{5}$$

$$x_1 = (-1 - \sqrt{5})/5, x_2 = (-1 + \sqrt{5})/5$$

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## Stupid Questions for 100.



$$a = 0 \text{ then } ax^2 + bx + c = 0$$

has no solution

has two solution

has more than two solutions

has one solution

none of the above

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## Stupid Questions for 200.



When  $0 = x^2 - 3$  then  $b = ?$

1

3

-3

0

-1

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## Stupid Questions for 300.



When  $0 = 2x^2 - 3x$  then  $c = ?$

2

3

-3

-2

0

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## Stupid Questions for 400.



The graph of  $y = x^2 - 2x - 3$

Has a shape of a line

Has a shape of hyperbola

Has a shape of two lines

Has a shape of parabola

Is a point

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