A

Answer

Intersects 2 times

How many **roots** does the following quadratic have?

$$y = x^2 + 12x + 36$$

B

Answer

$$b^2 - 4ac = 0$$

For what value(s) of *a*, does the following quadratic have 1 repeated root?

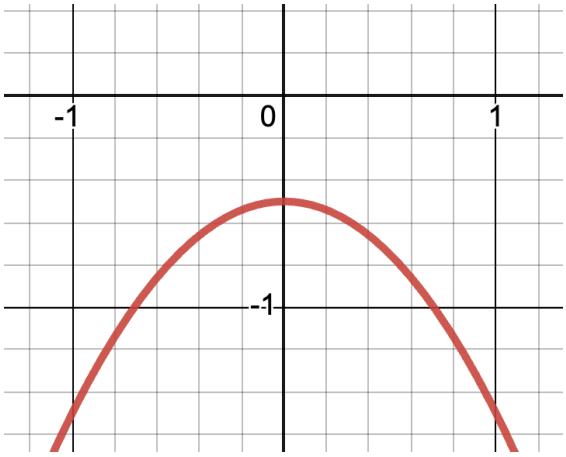
$$y = ax^2 + 2x + 4$$

C

Answer

$$c < \frac{9}{8}$$

State the nature of the **discriminant** for the following:



D

Answer

$$b^2 - 4ac < 0$$

For what value(s) of *b,* does the following quadratic have 1 repeated root?

$$y = x^2 + bx + 4$$

E

Answer

$-4 < b < 4$

For what value(s) of *m* does the following quadratic have 1 repeated real root?

$y = x^2 + 2mx + 4$

F

Answer

No real roots

For what value(s) of a, does the following quadratic have 2 real roots?

$$y = ax^2 + x + 1$$

G

Answer

$m = \pm 5$

How many **roots** does the following quadratic have?

$y = x^2 - 2x + 10$

H

Answer

1 repeated root

For what value(s) of *c*, does the following quadratic have 2 real roots?

$$y = 2x^2 + 3x + c$$

I

Answer

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

For what value(s) of *c*, does the following quadratic have 1 repeated root?

$$y = -3x^2 - 5x + c$$

J

Answer

$$a < \frac{1}{4}$$

For what value(s) of *b,* does the following quadratic have no real roots?

$$y = 4x^2 + bx + 1$$

K

Answer

$b < -6$

$b > 6$

How many **roots** does the following quadratic have?

$y = x^2 + 8x + 4$

L

Answer

$$m = \pm 2$$

For what value(s) of *b,* does the following quadratic have 2 real roots?

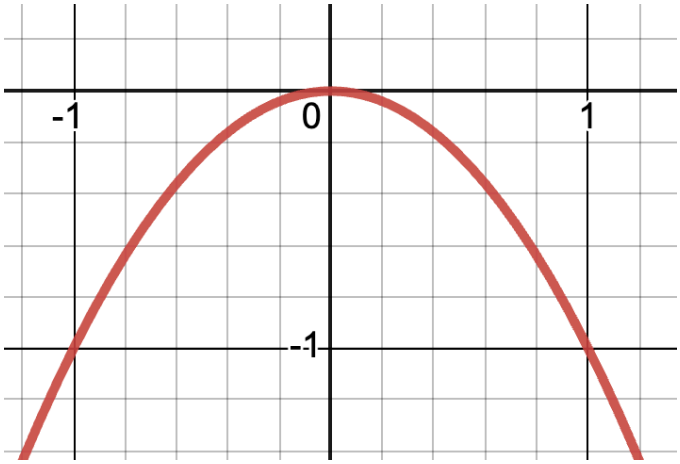
$$y = x^2 + bx + 9$$

M

Answer

$b = \pm 4$

State the nature of the **discriminant** for the following:



N

Answer

$$c = -\frac{25}{12}$$

How many times does the line:

$$y = x + 5$$

intersect with the quadratic:

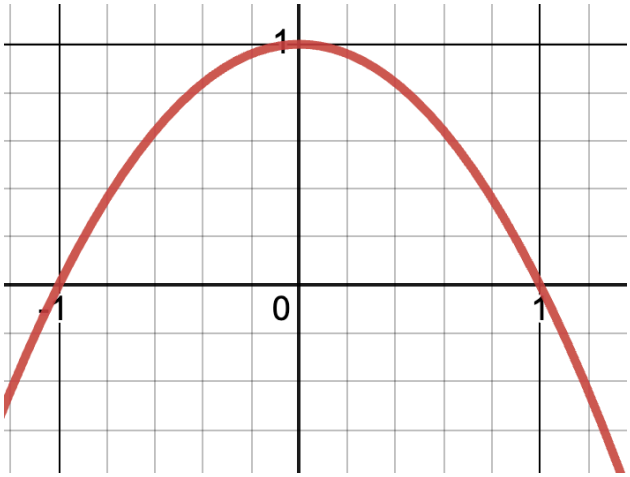
$$y = x^2 + 2x - 3$$

O

Answer

2 real roots

State the nature of the **discriminant** for the following:



P

Answer

$$a = \frac{1}{4}$$

For what value(s) of *m,* does the following quadratic have 1 repeated root?

$$y = mx^2 + 10x + m$$