



Quadratic Formula - Equation and Quadratic Formula to Complex Roots

1

$$y = -4x^2 - 5$$

What roots (solutions) would this quadratic equation have (use the quadratic formula)?

quadratic formula:

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

A

$$x = \frac{5.5 \pm i\sqrt{5.1}}{5}$$

B

$$x = \frac{-0 \pm i\sqrt{80}}{-8}$$

2

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

What roots (solutions) would this quadratic equation have (use the quadratic formula)?

quadratic formula:

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

A

$$x = \frac{6.3 \pm i\sqrt{1.8}}{8.7}$$

B

$$x = \frac{-2 \pm i\sqrt{56}}{-6}$$

3

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

What roots (solutions) would this quadratic equation have (use the quadratic formula)?

quadratic formula:

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

A

$$x = \frac{5.9 \pm i\sqrt{6.5}}{3.1}$$

B

$$x = \frac{1 \pm i\sqrt{31}}{8}$$

4

$$y = 5x^2 - 3x + 1$$

What roots (solutions) would this quadratic equation have (use the quadratic formula)?

quadratic formula:

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

A

$$x = \frac{1.4 \pm i\sqrt{8.2}}{8.7}$$

B

$$x = \frac{3 \pm i\sqrt{11}}{10}$$

5

$$y = 4x^2 + 3x + 1$$

What roots (solutions) would this quadratic equation have (use the quadratic formula)?

quadratic formula:

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

A

$$x = \frac{5.9 \pm i\sqrt{2.9}}{8.4}$$

B

$$x = \frac{-3 \pm i\sqrt{7}}{8}$$

6

$$y = -5x^2 - 4x - 5$$

What roots (solutions) would this quadratic equation have (use the quadratic formula)?

quadratic formula:

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

A

$$x = \frac{9.8 \pm i\sqrt{7.2}}{2.5}$$

B

$$x = \frac{4 \pm i\sqrt{84}}{-10}$$

7

$$y = -3x^2 + x - 4$$

What roots (solutions) would this quadratic equation have (use the quadratic formula)?

quadratic formula:

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

A

$$x = \frac{6.9 \pm i\sqrt{5.2}}{5.7}$$

B

$$x = \frac{-1 \pm i\sqrt{47}}{-6}$$

8

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

What roots (solutions) would this quadratic equation have (use the quadratic formula)?

quadratic formula:

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

A

$$x = \frac{5.9 \pm i\sqrt{2.6}}{3.5}$$

B

$$x = \frac{3 \pm i\sqrt{27}}{-6}$$