



Quadratic Formula - Equation and Quadratic Formula to Complex Roots

1

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

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

quadratic formula:

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

A

$$x = \frac{-0 \pm i\sqrt{64}}{-8}$$

B

$$x = \frac{2.8 \pm i\sqrt{7.8}}{6.8}$$

2

$$y = 4x + 5x^2 + 3$$

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

quadratic formula:

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

A

$$x = \frac{7.8 \pm i\sqrt{2.4}}{1.6}$$

B

$$x = \frac{-4 \pm i\sqrt{44}}{10}$$

3

$$y = x + 2x^2 + 2$$

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

quadratic formula:

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

A

$$x = \frac{9.3 \pm i\sqrt{7.4}}{3.7}$$

B

$$x = \frac{-1 \pm i\sqrt{15}}{4}$$

4

$$y = -5x^2 + 4x - 3$$

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

quadratic formula:

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

A

$$x = \frac{-4 \pm i\sqrt{44}}{-10}$$

B

$$x = \frac{1.4 \pm i\sqrt{9.3}}{4.4}$$

5

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

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

quadratic formula:

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

A

$$x = \frac{2.9 \pm i\sqrt{2.5}}{6.2}$$

B

$$x = \frac{3 \pm i\sqrt{23}}{8}$$

6

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

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

quadratic formula:

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

A

$$x = \frac{2.6 \pm i\sqrt{9.7}}{2.9}$$

B

$$x = \frac{-3 \pm i\sqrt{23}}{4}$$

7

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

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

quadratic formula:

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

A

$$x = \frac{2 \pm i\sqrt{1.4}}{6.6}$$

B

$$x = \frac{-0 \pm i\sqrt{16}}{2}$$

8

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

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

quadratic formula:

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

A

$$x = \frac{8.4 \pm i\sqrt{3.9}}{5.4}$$

B

$$x = \frac{1 \pm i\sqrt{7}}{4}$$