

## mobius

## **Quadratic Formula - Equation to Complex Roots**



What roots (solutions) would this quadratic equation have?

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

$$x = rac{3 \pm i \sqrt{71}}{-10} \, egin{array}{c} {}^{ ext{B}} & = rac{4.4 \pm i \sqrt{7.7}}{1.3} & \end{array}$$

2

What roots (solutions) would this quadratic

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

3

What roots (solutions) would this quadratic equation have?

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

$$x=rac{9.9\pm i\sqrt{3}}{7.2}$$
 B  $x=rac{1\pm i\sqrt{11}}{6}$ 

4

What roots (solutions) would this quadratic equation have?

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

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

$$x=\frac{9.9\pm i\sqrt{3}}{7.2}$$

$$x=\frac{1\pm i\sqrt{11}}{6}$$

$$x=\frac{1\pm i\sqrt{11}}{6}$$

$$x=\frac{7.1\pm i\sqrt{2.6}}{1.7}$$

$$x=\frac{-4\pm i\sqrt{48}}{8}$$

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So What roots (solutions) would this quadratic equation have?

quadratic equation have?

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

quadratic equation have?

$$= -4x^2 + 2x - 1 | y = -1x^2 - 2x - 5$$

$$x = rac{4 \pm i \sqrt{3.5}}{8.4} \left| x = rac{-2 \pm i \sqrt{12}}{-8} \right|^{ ext{A}} = rac{7.2 \pm i \sqrt{4.3}}{3.8} \left| x = rac{2 \pm i \sqrt{16}}{-2} 
ight|$$

$$\stackrel{ ext{ iny A}}{x}=rac{7.2\pm i\sqrt{4.3}}{3.8}$$

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

7

What roots (solutions) would this quadratic equation have?

8

What roots (solutions) would this quadratic equation have?

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

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

$$x = rac{-2 \pm i \sqrt{28}}{8} x = rac{1.5 \pm i \sqrt{4.6}}{2.4} x = rac{5.5 \pm i \sqrt{8.2}}{1.7} x = rac{2 \pm i \sqrt{44}}{-8}$$