

Homework – Solving Quadratics with Complex Solutions

Solve for x.

1) $x^2 + 1 = 0$

$$x = \pm i$$

2) $x^2 + 48 = 0$

$$x = \pm 4i\sqrt{3}$$

3) $11x^2 + 1 = 2x^2$

$$x = \pm \frac{1}{3}i \quad \text{or} \quad x = \pm \frac{i}{3}$$

4) $4(x - 2)^2 = -1$

$$x = 2 \pm \frac{i}{2}$$

5) $3(x + 5)^2 + 147 = 0$

$$x = 5 \pm 7i$$

6) $4(x + 1)^2 + 12 = 0$

$$x = -1 \pm i\sqrt{3}$$

7) $3x^2 + 5 = x^2 - 2$

$$x = \pm i\sqrt{\frac{7}{2}}$$

8) $2(x^2 + 7) = x^2 + 10$

$$x = \pm 2i$$

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