

$$5. \quad -3x^2 + 4x + 1 = 0$$

$$\begin{aligned}x &= \frac{-4 \pm \sqrt{4^2 - 4(-3)(1)}}{2(-3)} = \frac{-4 \pm \sqrt{16 - (-12)}}{-6} = \frac{-4 \pm \sqrt{28}}{-6} \\&= \frac{-4 \pm \sqrt{4 \cdot 7}}{-6} = \frac{-4 \pm 2\sqrt{7}}{-6} = \frac{-2(2 \pm \sqrt{7})}{-6} = \frac{2 \pm \sqrt{7}}{3}\end{aligned}$$

$$\text{or } -1(-3x^2 + 4x + 1) = -1(0)$$

$$3x^2 - 4x - 1 = 0$$

$$\begin{aligned}x &= \frac{-(-4) \pm \sqrt{(-4)^2 - 4(3)(-1)}}{2(3)} = \frac{4 \pm \sqrt{16 - (-12)}}{6} \\&= \frac{4 \pm \sqrt{28}}{6} = \frac{4 \pm \sqrt{4 \cdot 7}}{6} = \frac{4 \pm 2\sqrt{7}}{6} = \frac{2(2 \pm \sqrt{7})}{6} = \frac{2 \pm \sqrt{7}}{3}\end{aligned}$$