

$$2x^2 + 3x + 1 = 0 \quad a = 2 \quad b = 3 \quad c = 1$$

$$\begin{aligned} x &= \frac{-3 \pm \sqrt{(3)^2 - 4(2)(1)}}{2(2)} = \frac{-3 \pm \sqrt{9 - 8}}{4} = \frac{-3 \pm \sqrt{1}}{4} \\ &= \frac{-3 + 1}{4}, \frac{-3 - 1}{4} = \frac{-2}{4}, \frac{-4}{4} = -\frac{1}{2}, -1 \end{aligned}$$

$$x^2 - x - 1 = 0 \quad a = 1 \quad b = -1 \quad c = -1$$

$$\begin{aligned} x &= \frac{-(-1) \pm \sqrt{(-1)^2 - 4(1)(-1)}}{2(1)} = \frac{1 \pm \sqrt{1 - (-4)}}{2} = \frac{1 \pm \sqrt{1 + 4}}{2} \\ &= \frac{1 \pm \sqrt{5}}{2} = \frac{1 + \sqrt{5}}{2}, \frac{1 - \sqrt{5}}{2} \end{aligned}$$