

$$\begin{aligned}x &= \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \\&= \frac{-(-6) \pm \sqrt{288}}{2(9)} \\&= \frac{6 \pm \sqrt{144 \cdot 2}}{18} \\&= \frac{6 \pm 12\sqrt{2}}{18} \\&= \frac{\cancel{6}(1 \pm 2\sqrt{2})}{\cancel{18}} \\&= \frac{1 \pm 2\sqrt{2}}{3}\end{aligned}$$