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ACHA3000

Introduction to Mathematics and Science

④ use the quadratic formula $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{ac}$ to find the roots to the following quadratic equation

(i) $17x^2 = -5x + 14$

$17x^2 + 5x = 14$

$17x^2 + 5x - 14 = 0$

$$\frac{-5 \pm \sqrt{5^2 - 4 \cdot (17 \cdot -14)}}{2 \cdot 17}$$

$$x = -\frac{5 - \sqrt{977}}{34} \quad + - \quad \frac{5 + \sqrt{977}}{34}$$

$x = 0.77$ $\quad$ $x = -1.06$