

Subtract 9 from both sides: $x^2 + 10x = 7$

Add $\left(\frac{10}{2}\right)^2 = 5^2 = 25$ to both sides to complete the square: $x^2 + 10x + 25 = 32$

Write the left side as the square of a binomial: $(x + 5)^2 = 32$

Take the square root of both sides: $x + 5 = \pm\sqrt{32} = \pm\sqrt{16 \cdot 2} = \pm 4\sqrt{2}$

Solve for x : $x = -5 \pm 4\sqrt{2}$