

Check Your Understanding

Solving Equations: Solving Quadratics by Taking Square Roots and Completing the Square

Answer these problems, then check your answers using the key on the next page.

#1) Solve by taking square roots: $(x-11)^2 + 2 = 4$

#2) Solve by taking square roots: $5(5c+1)^2 = 50$

#3) Solve by completing the square and taking square roots: $x^2 - 8x = 7$

Answers:

$$\#1) x = 11 + \sqrt{2}, \quad x = 11 - \sqrt{2}$$

$$\#2) c = -\frac{1}{5} + \frac{\sqrt{10}}{5}, \quad c = -\frac{1}{5} - \frac{\sqrt{10}}{5}$$

$$\#3) x = 4 + \sqrt{23}, \quad x = 4 - \sqrt{23}$$