

7.3 Algebraic Techniques for Solving Quadratic Equations

1. $a = 2$, $b = 12$, and $c = -5$

3. $x = 3 \pm \frac{\sqrt{116}}{4}$ or $x = 3 \pm \frac{\sqrt{29}}{2}$

(At this point, either solution is acceptable. In Chapter 9 you will learn that the second one is in "simple radical form.")

5. $x = 3 \pm \sqrt{21}$

7. 21.25

9b. $x = 7$

11. no real solution

13. $r = 3$ or $r = -1$

15. a. $x(x+1) = \frac{10}{9}$ b. $x = \frac{2}{3}$ or $x = \frac{5}{3}$

17. $\frac{7}{2}$ cm

19. $x = -6.6$