

Use the Zero Product Property to solve each equation. Check your answer.

1. $(x + 2)(x - 8) = 0$

2. $(x - 6)(x - 5) = 0$

3. $(x + 7)(x + 9) = 0$

4. $(x)(x - 1) = 0$

5. $(x)(x + 11) = 0$

6. $(3x + 2)(4x - 1) = 0$

Solve each quadratic equation by factoring. Check your answer.

7. $x^2 + 4x - 12 = 0$

8. $x^2 - 8x - 9 = 0$

9. $x^2 - 5x + 6 = 0$

10. $x^2 - 3x = 10$

11. $x^2 + 10x = -16$

12. $x^2 + 2x = 15$

13. $x^2 - 8x + 16 = 0$

14. $-3x^2 = 18x + 27$

15. $x^2 + 36 = 12x$

16. $2x^2 + 5x - 3 = 0$

17. $2x^2 + 7x + 6 = 0$

18. $2x^2 + 6x = -18$

19. **Games** A group of friends tries to keep a beanbag from touching the ground.

On one kick, the beanbag's height can be modeled by $h = -16t^2 + 14t + 2$, where h is the height in feet above the ground and t is the time in seconds. Find the time it takes the beanbag to reach the ground.