

3. $x = 7$

4. $x = 18$

5. $x = 24$

6. $x = 27$

7. $x = 6$

8. $x = 6.4$

9. $x = -\frac{1000}{3}$

10. $x = \frac{2}{9}$

11. $x = 1024$

12. no real solution

13. about 21.7 yr

14. about 11.5 m

15. $x = 12$

16. $x = 25$

17. $x = 14$

18. $x = 3$

19. $x = 0$ and $x = \frac{1}{2}$

20. $x = \frac{1}{2}$

55. a. When solving the first equation, the solution is $x = 8$ with $x = 2$ as an extraneous solution. When solving the second equation, the solution is $x = 2$ with $x = 8$ as an extraneous solution.

