Section 5.1
2. $x = 2$
38. $4535.15
42. $597.81

Section 5.2
2. a. f is increasing, y-int = 1, and does not cross the x-axis
   b. f is increasing and y-int = 2, does not cross the x-axis
8. $\approx$ $10,257.92

Section 5.3
4. a. $3^4 = 81$ b. $4^{-4} = \dfrac{1}{256}$

   c. $v^q = w$ d. $6^3 = 2x - 1$

   e. $4^{5-x} = p$ f. $a^{\frac{3}{4}} = 343$

16. a. 7   b. - 6   c. 5

   d. - 3   e. 8   f. $\dfrac{2}{3}$

   g. 5e

18. $x = -\dfrac{3}{2}$

26. $x = \dfrac{1}{8}$

44. $f(x) = F(x + 3)$
62. approx. 14.27 years

Section 5.4
4. $5\log_a y + 2\log_a w - 4\log_a x - 3\log_a z$

6. $\dfrac{1}{2}\log y - 4\log x - \dfrac{1}{3}\log z$

10. a. $\log_4(3xz)$ b. $\log_4\left(\dfrac{x}{7y}\right)$

   c. $\log_4 \sqrt[3]{w}$

14. $\log y^4$

18. $x = \dfrac{13}{3}$

22. $x = \dfrac{2}{15}$

46. f is decreasing, x-int =1 and does not cross the y-axis

Section 5.5
2. $x = \dfrac{\log 3}{\log 4} \approx 0.79$

12. $x = \dfrac{\log 1600}{\log \dfrac{5}{16}} = -\dfrac{\log 1600}{\log \dfrac{16}{5}} \approx -6.34$

Section 5.5 (con't)
18. $x = \dfrac{301}{195} \approx 1.54$

50. $t = \dfrac{\ln\left(\dfrac{A}{P}\right)}{n\ln\left(1 + \dfrac{r}{n}\right)}$

54. a. 7.21 hr.   b. 3.11 hr.