Answers

Pg 370: 2-16 (even), 20, 33, 34

2) $y = 200 \cdot 1.0875^x$

$a = 200$ $b = 1.0875$

4) $f(t) = 1.5^t$

$a = 1$ $b = 1.5$

6) $f(t) = 30 \cdot \underbrace{1.095}_{9.5\%}{}^t$

8) $y = 2^x$

$2 = 1 + 1$ 100%

10) $5\% \rightarrow 1.05$

12) $8.75\% \rightarrow 1.0875$

14) $15\% \rightarrow 1.15$

16) $y = 50(1.06)^x$

y is price

x is # of years

20) $y = 24(1.045)^x$ number of years

$x = 2008 - 1626 = 382$

$y = 24(1.045)^{382} = \$481,542,022.50$

33) $y = 2400(1.07)^{10} = \$4721.16$

34) 7% compounded monthly $\rightarrow \frac{7}{12} = 0.58\overline{3}\%$ per month

annual

$y = 2400(1.00583)^{120} = \$4821.27$

10 years $\rightarrow$ 120 months