

23. a. $y = 233(1.06)^t$; about 261.8 million
b. 2009

24. a. $y = 325(0.71)^t$
b. about 3.4 h

25. Power of a Power Property; Evaluate power; Rewrite in form
 $y = a(1 + r)^t$.

26. Power of a Power Property; Evaluate power; Rewrite in form
 $y = a(1 - r)^t$.

27. about 0.01%

28. about 56%

29. $y = a(1 + 0.26)^t$; 26% growth

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31. $y = a(1 - 0.06)^t$; 6% decay

32. $y = a(1 - 0.14)^t$; 14% decay

33. $y = a(1 - 0.04)^t$; 4% decay

34. $y = a(1 + 0.01)^t$; 1% growth

35. $y = a(1 + 255)^t$; 25,500% growth

36. $y = a(1 - 0.96)^t$; 96% decay

37. \$5593.60

38. quarterly \approx \$432.11; monthly \approx \$433.29;
daily \approx \$433.86

39. The percent decrease needs to be subtracted from 1 to produce the decay factor;

$$y = \left(\frac{\text{Initial}}{\text{amount}} \right) \left(\frac{\text{Decay}}{\text{factor}} \right)^t; y = 500(1 - 0.02)^t; y = 500(0.98)^t$$

40. The percentage rate was not converted to a decimal;

$$A = 250 \left(1 + \frac{0.0125}{4} \right)^{4 \cdot 3}; A \approx \$259.54$$

41. \$3982.92

42. \$4014.98

43. \$3906.18

44. \$3774.71