Name _____ Date _____

Exponential Decay - Independent Practice Worksheet

Complete all the problems.

1. Olivia purchased a music system worth $18,000 in the year 2001. It loses its value by 6% per year. What is the value of the music system in 2003?

2. Matthew bought a laptop for $34,000 in the year 2008. Its value depreciates by 4% per year. What is the value of laptop in 2011?

3. Ryan bought a bike for $47,000 in the year 2002. Its value depreciates by 2% per year. What is the value of the bike in 2006?

4. Which of the following model is an exponential decay model?

a) $y = 12\ (3.57)^t$ b) $y = 4\ (1.21)^t$

c) $y = 1 + 6t$ d) $y = 7\ (0.98)^t$

5. Daisy purchased a food processor for $23,000 in the year 2009. It loses its value by 7% per year. What is the price of the food processor in 2012?

6. Sarah bought a dish washer for $6,000 in the year 2000. It depreciates by 2% per year. What is the value of the dish washer in 2001?

7. Which of the following model is an exponential decay model?

a) $y = 2{,}000\ (0.07)^t$ b) $y = 4{,}000\ (3.84)^t$

c) $y = 26t^2$ d) $y = 1 + 17t$

8. Adam bought a fish aquarium worth $2,000 in the first week of the year. Its value depreciates by 3% per week. What will the value of fish aquarium after 5 weeks?

9. Which of the following model is an exponential decay model?

a) $y = 16t^2$ b) $y = 9\ (0.14)^t$

c) $y = 24\ (1.05)^t$ d) $y = 1 + 57t$

10. Which of the following model is an exponential decay model?

a) $y = 1 + 14t$ b) $y = 34\ (0.85)^t$

c) $y = 3t^2$ d) $y = 47\ (1.85)^t$