Name ____________________ Date ________________________

Exponential Decay - Matching Worksheet

Write the letter of the answer that matches the problem.

_______	1. Alyssa bought a microwave worth \$30,000 in the year 2007. It loses its value by 5% per year. What is the value of the microwave in 2011?	a. \$14,504.01
_______	2. Which of the following model is an exponential decay model? a) $y = 2 + 48t$ b) $y = 74\ (2.65)^t$ c) $y = 7\ (0.65)^t$ d) $y = 74t^2$	b. \$23,213.43
_______	3. Lilly purchased a pan drive worth \$800 in the first month of the year. Its value depreciates by 2% per month. What will the value of pan drive after 6 months?	c. \$1,440.60
_______	4. Bella purchased a hand blender worth \$1,500 in the year 2007. It loses its value by 2% per year. What is the value of the music system in 2009?	d. $y = 7\ (0.65)^t$
_______	5. Which of the following model is an exponential decay model? a) $y = 40\ (0.96)^t$ b) $y = 21\ (1.96)^t$ c) $y = 22t^2$ d) $y = 1 + 7t$	e. \$15,135.75
_______	6. Sophia bought a digital camera for \$17,500 in the year 2010. It loses its value by 7% per year. What is the value of the digital camera in 2012?	f. $y = 40\ (0.96)^t$
_______	7. Charlie bought an AC worth \$26,000 in the first month of the year. Its value depreciates by 8% per month. What will the value of the AC after 7 months?	g. \$708.67