

Name _____ Date _____

Exponential Growth and Decay.

- 1) In 1990, the population (P) of Austin, Texas was 494,000. During the next 10 years the population increased 3% per year. Write the equation that models the population of Austin in 10 years.

- 2) In 1977, there was 41 breeding pairs of bald eagles in Maryland. Over the next 24 years the number of breeding pairs increased by 8.9% per year. Write the equation that models the number of breeding pairs, N , in 24 years.

- 3) A new mountain bike costs \$500. The value of the bike decreases 25% per year. Write the equation for the value, V , in 3 years.

- 4) The value of a \$24,000 automobile decreases at a rate of 16% per year. Write the equation for the value, V , of the car in 7 years.

- 5) In 1997, the number of DVD players sold in the US was 420,000. The sales increased by 147% each year over the next 5 years. Write the equation that models the number, N , of DVD players in 5 years.