**Writing the Base**

[

y = a • bx

Growth: **b** =

Decay: **b** =

Where r is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (in the story) as a \_\_\_\_\_\_\_\_\_\_.

Example: Something is growing each month at a rate of 5%.

**Growth** or **Decay** **b** = \_\_\_\_\_\_\_\_\_\_

r = rate of change = \_\_\_\_\_ ; r as a decimal: \_\_\_\_\_

**b** = \_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_

Example: Something is decaying each year at a rate of 17%.

**Growth** or **Decay** **b** = \_\_\_\_\_\_\_\_\_\_

r = rate of change = \_\_\_\_\_ ; r as a decimal: \_\_\_\_\_

**b** = \_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_

Example 2:

Your new computer cost $1500 but it depreciates in value by about 18% each year.

a.) Identify the initial amount (a).

b.) **Growth** or **Decay**

c.) Growth/Decay Factor (b)

d.) Exponential Equation (y = a • bx):

Example 1:

A population of 800 beetles is growing each month at a rate of 5%.

a.) Identify the initial amount (a).

b.) **Growth** or **Decay**

c.) Growth/Decay Factor (b)

d.) Exponential Equation (y = a • bx):