Section 8.6 Worksheet

Name: _____

Write an exponential growth function to model the situation. Tell what each variable represents.

1. Your salary of $25,000 increases 7% each year.

2. A population of 310,000 increases by 15% each year.

3. An annual benefit concert attendance of 10,000 inceases by 5% each year.

4. You deposit $1400 in an account that pays 6% compounded yearly. Write a model to represent this information. Find the balance at the end of the given time period.

Model:_____

    a. 5 years   b. 8 years   c. 12 years   d. 20 years

5. The deer population in Wisconsin has reached a level of 1.7 million deer. With a birth rate 5% each year, write a model to represent this information.

Model:_____

    a. Using the model, what would the population of deer be in 5 years?

    b. What would the population of deer be in 10 years?

6. A population of 50 pheasants is released in a wildlife preserve. The population triples each year for three years. What is the exponential growth model used with this information?

Model:_____

     a. Using the model, what would the population be after 3 years?

7. A population of 40 pheasants is released in a wildlife preserve. The population doubles each year for 3 years. What is the exponential growth model this information?

Model:_____

     a. What is the pheasant population after 4 years?

     b. What is the pheasant population after 8 years?

     c. Graph the exponential growth of the model using a table: (label the axis and numbers)

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