**Homework L8-1**

Introduction to Exponential Functions

***Directions***: Determine **a)** whether each function is exponential growth or decay, **b)** identify the growth (or decay) factor, and **c)** find the functions’ percent increase or decrease.

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| 1. $ y=12(1.7)^{x}$
 | 1. $ f(x)=5(6)^{x}$
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| 1. $f(x)=16(\frac{1}{4})^{x}$
 | 1. $ f(x)=5(0.45)^{x}$
 |

***Directions*:**A) Write an exponential function for each situation. B) Find the value after five years.

1. A population of 250 frogs increases at an annual rate of 22%.
2. A stock priced a t $35 increases at a rate of 7.5% per year.
3. A $17,000 delivery van depreciates at 11% each year.
4. A population of 115 cougars decreases 1.25% each year.