**What is an exponential function?**

A function were the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_and the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

An exponential function has the form,

where b is the base of the function.

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| --- | --- |
| \*If \_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_, then the function is an exponential \_\_\_\_\_\_\_\_\_\_\_\_ function and the graph \_\_\_\_\_\_\_\_\_\_\_\_\_ over the entire domain.**General Shape:** | \*If \_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_, then the function is an exponential \_\_\_\_\_\_\_\_\_\_\_ function and the graph \_\_\_\_\_\_\_\_\_\_ over the entire domain.**General Shape:** |

**Examples:**

Describe the function as exponential growth or decay.

|  |  |
| --- | --- |
| 1.) | 2.) |
| 3.) | 4.)  |
| 5.)  | 6.)  |
| 7.)  |