Algebra 1 ~ Day 2, 10/3/2017 Unit 4 Practice Quiz Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Use the given graph to identify the characteristics.

Domain \_\_\_\_\_\_\_\_\_\_\_

Range \_\_\_\_\_\_\_\_\_\_\_

Asymptote \_\_\_\_\_\_\_

X-intercept \_\_\_\_\_\_\_

Y-intercept \_\_\_\_\_\_\_

End Behavior:

As $x\rightarrow -\infty , y\rightarrow \\_\\_\\_$

As $x\rightarrow \infty , y\rightarrow \\_\\_\\_$

*Circle one:*

Increasing or Decreasing

AROC [0, 1]:

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AROC [-1, 0]:

**Fill in the table for each exponential function and then graph the function.**

|  |  |
| --- | --- |
| x | y |
| -3 |  |
| -2 |  |
| -1 |  |
| 0 |  |
| 1 |  |
| 2 |  |
| 3 |  |

1. $f\left(x\right)=3(2)^{x}$

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

1. $f\left(x\right)=5^{x}$

|  |  |
| --- | --- |
| x | y |
| -3 |  |
| -2 |  |
| -1 |  |
| 0 |  |
| 1 |  |
| 2 |  |
| 3 |  |

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

1. $f\left(x\right)=\left(\frac{1}{5}\right)^{x}$

|  |  |
| --- | --- |
| x | y |
| -3 |  |
| -2 |  |
| -1 |  |
| 0 |  |
| 1 |  |
| 2 |  |
| 3 |  |



Consider the parent function $f\left(x\right)=\left(\frac{1}{2}\right)^{x}$. How would the original graph be transformed if:

1. $f\left(x\right)=2\left(\frac{1}{2}\right)^{x}$
2. $f\left(x\right)=\left(\frac{1}{2}\right)^{x}-5$
3. $f\left(x\right)=\left(\frac{1}{2}\right)^{x+4}$
4. $f\left(x\right)=-\left(\frac{1}{2}\right)^{x}$
5. $f\left(x\right)=-\frac{1}{4}\left(\frac{1}{2}\right)^{x-3}+5$

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Write an equation for the given graphs:

1. 

