## Math 3

Unit 2 Day 7 CW

Name:
Date: $\qquad$

1. Graph the exponential function and its inverse on the grid.

$$
y=2^{x} \quad \text { and } \quad y=\log _{2} x
$$

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


| $\mathbf{x}$ | $\mathbf{y}$ |
| :---: | :---: |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |


2. Graph the exponential function and its inverse on the grid.
$y=\left(\frac{1}{2}\right)^{x} \quad$ and $\quad y=\log _{\frac{1}{2}} x$

| $\mathbf{x}$ | $\mathbf{y}$ |
| :---: | :---: |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |


| $\mathbf{x}$ | $\mathbf{y}$ |
| :---: | :---: |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |


3. List the characteristic points of $y=\log _{10} x$. $\qquad$

Determine the transformations as compared to the base graph, $y=\log _{10} x$. Graph each function on the coordinate planes provided. Determine the domain, range, and asymptotes of each transformation.


