## Logarithm Graphs

The logarithm function is an $\qquad$ of the exponential function.
$f(x)=2^{x}$

| $x$ | $f(x)$ |
| :---: | :---: |
| -2 |  |
| -1 |  |
| 0 |  |
| 1 |  |
| 2 |  |
| 3 |  |


$f^{-1}(x)=\log _{2} x$


## Characteristics of the parent functions:

| Exponential: | Logarithmic: |
| :--- | :--- |
|  |  |
|  |  |

Examples: Graph each of the functions.

1. $f(x)=3+\log _{2}(x-1)$

2. $f(x)=\log _{2} \frac{x}{32}$

