

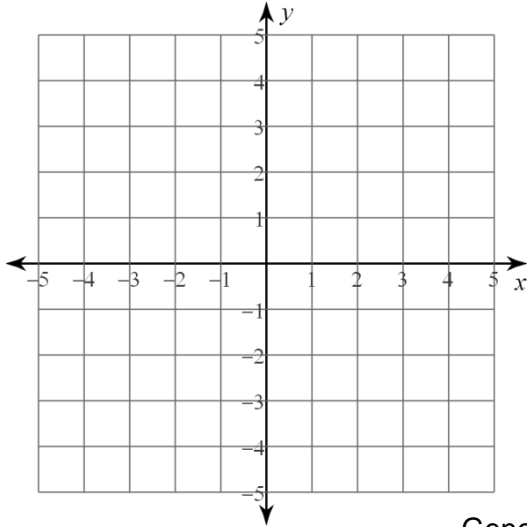
## Logarithmic function

Parent Function equation: \_\_\_\_\_

Table of values for parent function:

x	-2	-1	0	1	2
y					

Graph of Parent function:



General

Transformation equation:

\_\_\_\_\_

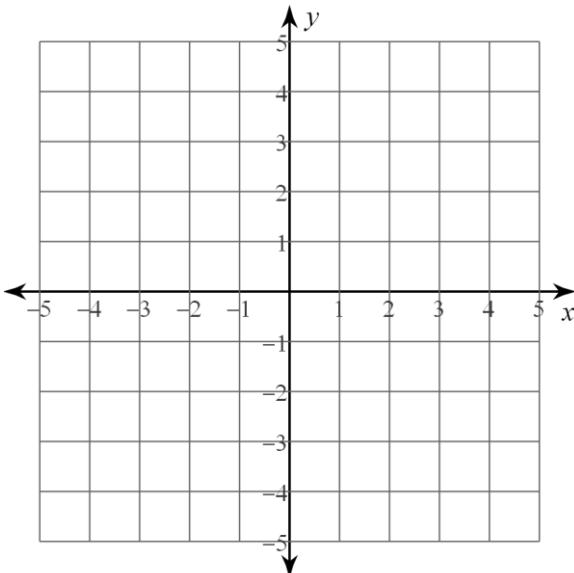
Transformed equation

$$y = 2 \log_3(x - 1) + 4$$

Verbal Description of transformation:

\_\_\_\_\_

Graph of the transformed equation:



Analysis of the Parent Function:

Domain:

Range:

Where Increasing:

Where Decreasing:

Where Positive:

Where Negative:

Absolute Min/Max Location:

y-intercept:

x-intercept:

Average Rate of change from  $x = 0$  to  $x = 1$

Average Rate of change from  $x = 0$  to  $x = 2$

Vertical Asymptote:

Analysis of the Transformed Equation:

Domain:

Range:

Where Increasing:

Where Decreasing:

Where Positive:

Where Negative:

Absolute Min/Max Location:

y-intercept:

x-intercept:

Average Rate of change from  $x = 0$  to  $x = 1$

Average Rate of change from  $x = 0$  to  $x = 2$

Vertical Asymptote: