

**Formative Assessment #16 – Transformed Logarithmic Function**

**RF1.1: I can describe the effects of transformations on the graph of a function,  $f(x)$ .**

1. Given:  $m(x) = -3 \log_2[-(x + 4)] + 7$

- a) State the equation of the parent function,  $f(x)$ . \_\_\_\_\_
- b) Describe the transformations applied to the graph of the parent function.


**RF4.5a: I can sketch the graph of a transformed logarithmic function.**

- c) Draw the graph of  $m(x)$  on the graph paper provided. As part of your solution, include a mapping rule and a table of values containing five image points in the space below.

**RF4.5b: I can state the characteristics of a transformed logarithmic form.**

- d) Complete the chart for the function  $m(x) = -3 \log_2[-(x + 4)] + 7$ . Use interval notation where appropriate.

Characteristic	Answer
Domain	
Range	
Equation of the Asymptote	
Interval of Increase	
Interval of Decrease	
End Behavior	Left End: Right End:

Code(s)	Learning Categories						 Assessed by:
RF1.1	EH	EL	AH	AL	NH	NL	
RF4.5a	EH	EL	AH	AL	NH	NL	
RF4.5b	EH	EL	AH	AL	NH	NL	
<b>Notes</b>							