

Name _____

Date _____

Calculate the Value of Log Operations Problems - Step-by-Step Lesson

Calculate the value of: $\log_2 32 + \log_2 128$

Explanation:

We will be using the following properties in this case:

$$\log_b (x^n) = n \log_b x$$

&

$\log_b x + \log_b x = 2 \log_b x$ for the same argument & base.

Applying these properties to our problem:

$$\log_2 32 + \log_2 128 = \log_2 2^5 + \log_2 2^7$$

$$= 5 \log_2 2 + 7 \log_2 2$$

$$= 12 \log_2 2$$

$$= 12$$

