

Student Name: _____

Score: _____

Expand Using Product Rule

Example: $\log_4(5 \times 7)$

$$\log_4(5 \times 7) = \log_4 5 + \log_4 7$$

Answer: **$\log_4 5 + \log_4 7$**

$\log_2(3 \times 4)$

Answer: _____

$\log_7(9 \times 2 \times 8)$

Answer: _____

$\log_8(10 \times 2 \times 11)$

Answer: _____

$\log_9(10 \times 6 \times 3)$

Answer: _____

$\log_5(4 \times 8 \times 9)$

Answer: _____

$\log_{10}(5 \times 2 \times 8 \times 6)$

Answer: _____

$\log_{11}(5 \times 4 \times 6 \times 7)$

Answer: _____

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Answers

<p><i>Example:</i> $\log_4(5 \times 7)$</p> <p>$\log_4(5 \times 7) = \log_4 5 + \log_4 7$</p> <p>Answer: $\log_4 5 + \log_4 7$</p>	<p>$\log_2(3 \times 4)$</p> <p>Answer: $\log_2 3 + \log_2 4$</p>
<p>$\log_7(9 \times 2 \times 8)$</p> <p>Answer: $\log_7 9 + \log_7 2 + \log_7 8$</p>	<p>$\log_8(10 \times 2 \times 11)$</p> <p>Answer: $\log_8 10 + \log_8 2 + \log_8 11$</p>
<p>$\log_9(10 \times 6 \times 3)$</p> <p>Answer: $\log_9 10 + \log_9 6 + \log_9 3$</p>	<p>$\log_5(4 \times 8 \times 9)$</p> <p>Answer: $\log_5 4 + \log_5 8 + \log_5 9$</p>
<p>$\log_{10}(5 \times 2 \times 8 \times 6)$</p> <p>Answer: $\log_{10} 5 + \log_{10} 2 + \log_{10} 8 + \log_{10} 6$</p>	<p>$\log_{11}(5 \times 4 \times 6 \times 7)$</p> <p>Answer: $\log_{11} 5 + \log_{11} 4 + \log_{11} 6 + \log_{11} 7$</p>