

Student Name: _____

Score: _____

Simplify Using Change of Base Rule

Example: $\log_4 8$

$$\log_4 8 = \frac{\log_2 8}{\log_2 4}$$

$$= \frac{\log_2 2^3}{\log_2 2^2} = \frac{3 \log_2 2}{2 \log_2 2}$$

$$= \frac{3}{2}$$

Problems

Work Space

$\log_{27} 9$ Answer: _____	
$\log_8 32$ Answer: _____	
$\log_{125} 625$ Answer: _____	

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Answers

$\log_{27} 9$	
Answer: $\frac{2}{3}$	
$\log_8 32$	
Answer: $\frac{5}{3}$	
$\log_{125} 625$	
Answer: $\frac{4}{3}$	