

Student Name: _____

Score: _____

Solve for the Unknown Using Product Rule

Problems

Work Space

$$\log_2 12x + \log_2 3 = \log_2 36$$

$$x = \underline{\hspace{2cm}}$$

$$\log_4 2 + \log_4 x^2 = \log_4 x$$

$$x = \underline{\hspace{2cm}}$$

$$\log_2(x + 1) + \log_2(x - 1) = \log_2 24$$

$$x = \underline{\hspace{2cm}}$$

$$\log_5(x + 3) + \log_5(x + 3) = \log_5 49$$

$$x = \underline{\hspace{2cm}}$$

Student Name: _____

Score: _____

Answers

$\log_2 12x + \log_2 3 = \log_2 36$ $x = 1$	
$\log_4 2 + \log_4 x^2 = \log_4 x$ $x = 0 \text{ or } \frac{1}{2}$	
$\log_2(x + 1) + \log_2(x - 1) = \log_2 24$ $x = 5$	
$\log_5(x + 3) + \log_5(x + 3) = \log_5 49$ $x = 4$	