Date ______ Period _____

Product Property

$$\log_b m \cdot n = \log_b m + \log_b n$$

Quotient Property

$$\log_b \frac{m}{n} = \log_b m - \log_b n$$

Power Property

$$\log_b m^x = x \cdot \log_b m$$

Inverse Properties

$$\log_b b^x = x \quad b^{\log_b x} = x$$

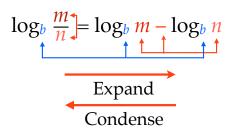
Product Property

$$\log_b m \cdot n = \log_b m + \log_b n$$
Expand
Condense

Expand Condense

 $\log_7 15$ $\log_4 2 + \log_4 7$

Quotient Property



Expand

Condense

$$log_3 \frac{2}{7}$$

 $log_2 \, 5 - log_2 \, 8$

Power Property

$$\log_b m^x = x \cdot \log_b m$$
Expand
Condense

Expand

Condense

$$log_7 \frac{4^3}{4}$$

2·log₆ 3

Inverse Properties

$$\log_b b^x = x \qquad b^{\log_b x} = x$$

$$log_4 4^3$$

$$2^{\log_2 5}$$

$$\log_b b = 1$$

$$\log_b 1 = 0$$

Product Property

$$\log_b m \cdot n = \log_b m + \log_b n$$

Power Property

$$\log_b m^x = x \cdot \log_b m$$

Quotient Property

$$\log_b \frac{m}{n} = \log_b m - \log_b n$$

Inverse Properties

$$\log_b b^x = x \quad b^{\log_b x} = x$$