

Objective: To evaluate and rewrite exponential and logarithmic functions.

Warm Up:

Solve for x .

A.) $64^{x+3} = 2^{4x+6}$

B.) $36^{x+4} = 216^{3x+1}$

C.) $3^x = 4$

Example 1: Convert the following forms from either exponential to logarithmic or logarithmic to exponential.

A.) $\log_3 243 = 5$

B.) $5^4 = 625$

C.) $\log_6 1 = 0$

D.) $4^3 = 64$

E.) $\log_2 2 = 1$

F.) $7^0 = 1$

G.) $\log_5 25 = 2$

H.) $1^8 = 1$

Example 2:

Rewrite the logarithmic form to exponential form & then evaluate/solve each one. Remember, when you do not see an equal sign, but the question tells you to evaluate, pretend the logarithm equals x .

A.) $\log_2 x = -4$

B.) $\log_2 \frac{1}{64}$

C.) $\log_x \frac{1}{81} = -2$

D.) $\log 100$