

Name : _____

Score : _____

Logarithmic & Exponential Form

Numerals: S1

Express each equation in logarithmic form.

1) $5^2 = 25$

2) $36^{\frac{1}{2}} = 6$

3) $3^{-3} = \frac{1}{27}$

4) $4^3 = 64$

5) $3^2 = 9$

6) $2^6 = 64$

7) $6^3 = 216$

8) $2^{-4} = \frac{1}{16}$

Express each equation in exponential form.

9) $\log_2 32 = 5$

10) $\log_4 256 = 4$

11) $\log_5 125 = 3$

12) $\log_8 2 = \frac{1}{3}$

13) $\log_3 27 = 3$

14) $\log_4 \left(\frac{1}{64}\right) = -3$

15) $\log_2 \left(\frac{1}{8}\right) = -3$

16) $\log_{10} 1000 = 3$

Logarithmic & Exponential Form

Numerals: S1

Express each equation in logarithmic form.

1) $5^2 = 25$ $\log_5 25 = 2$	2) $36^{\frac{1}{2}} = 6$ $\log_{36} 6 = \frac{1}{2}$
3) $3^{-3} = \frac{1}{27}$ $\log_3 \left(\frac{1}{27}\right) = -3$	4) $4^3 = 64$ $\log_4 64 = 3$
5) $3^2 = 9$ $\log_3 9 = 2$	6) $2^6 = 64$ $\log_2 64 = 6$
7) $6^3 = 216$ $\log_6 216 = 3$	8) $2^{-4} = \frac{1}{16}$ $\log_2 \left(\frac{1}{16}\right) = -4$

Express each equation in exponential form.

9) $\log_2 32 = 5$ $2^5 = 32$	10) $\log_4 256 = 4$ $4^4 = 256$
11) $\log_5 125 = 3$ $5^3 = 125$	12) $\log_8 2 = \frac{1}{3}$ $8^{\frac{1}{3}} = 2$
13) $\log_3 27 = 3$ $3^3 = 27$	14) $\log_4 \left(\frac{1}{64}\right) = -3$ $4^{-3} = \frac{1}{64}$
15) $\log_2 \left(\frac{1}{8}\right) = -3$ $2^{-3} = \frac{1}{8}$	16) $\log_{10} 1000 = 3$ $10^3 = 1000$