



Logarithms - Convert Logarithm to Exponent - Fraction Base

1 Convert the given logarithm to the equivalent in exponent form

$$\log_{\frac{1}{8}} \frac{1}{64} = 2$$

A $2^{\frac{1}{8}} = \frac{1}{64}$	B $\frac{1}{8}^2 = \frac{1}{64}$	C $2^{\frac{1}{64}} = \frac{1}{8}$	D $\frac{1}{64}^2 = \frac{1}{8}$
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2 Convert the given logarithm to the equivalent in exponent form

$$\log_{\frac{1}{3}} \frac{1}{81} = 4$$

A $\frac{1}{3}^4 = \frac{1}{81}$	B $\frac{1}{81}^{\frac{1}{3}} = 4$	C $\frac{1}{81}^4 = \frac{1}{3}$	D $4^{\frac{1}{3}} = \frac{1}{81}$
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3 Convert the given logarithm to the equivalent in exponent form

$$\log_{\frac{1}{10}} \frac{1}{100,000} = 5$$

A $\frac{1}{10}^5 = \frac{1}{100,000}$	B $\frac{1}{100,000}^5 = \frac{1}{10}$
C $\frac{1}{100,000}^{\frac{1}{5}} = 5$	D $5^{\frac{1}{100,000}} = \frac{1}{10}$

4 Convert the given logarithm to the equivalent in exponent form

$$\log_{\frac{1}{4}} \frac{1}{64} = 3$$

A $\frac{1}{64}^{\frac{1}{4}} = 3$	B $3^{\frac{1}{64}} = \frac{1}{4}$	C $\frac{1}{4}^3 = \frac{1}{64}$	D $\frac{1}{64}^3 = \frac{1}{4}$
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5 Convert the given logarithm to the equivalent in exponent form

$$\log_{\frac{1}{5}} \frac{1}{25} = 2$$

A $2^{\frac{1}{25}} = \frac{1}{5}$	B $\frac{1}{25}^2 = \frac{1}{5}$	C $\frac{1}{25}^{\frac{1}{5}} = 2$	D $\frac{1}{5}^2 = \frac{1}{25}$
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6 Convert the given logarithm to the equivalent in exponent form

$$\log_{\frac{1}{2}} \frac{1}{8} = 3$$

A $\frac{1}{2}^3 = \frac{1}{8}$	B $3^{\frac{1}{8}} = \frac{1}{2}$	C $3^{\frac{1}{2}} = \frac{1}{8}$
D $\frac{1}{8}^{\frac{1}{2}} = 3$		

7 Convert the given logarithm to the equivalent in exponent form

$$\log_{\frac{1}{3}} \frac{1}{9} = 2$$

A $\frac{1}{9}^{\frac{1}{3}} = 2$	B $\frac{1}{9}^2 = \frac{1}{3}$	C $2^{\frac{1}{3}} = \frac{1}{9}$
D $\frac{1}{3}^2 = \frac{1}{9}$		

8 Convert the given logarithm to the equivalent in exponent form

$$\log_{\frac{1}{5}} \frac{1}{125} = 3$$

A $\frac{1}{125}^3 = \frac{1}{5}$	B $\frac{1}{5}^3 = \frac{1}{125}$	C $3^{\frac{1}{5}} = \frac{1}{125}$	D $\frac{1}{125}^{\frac{1}{5}} = 3$
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