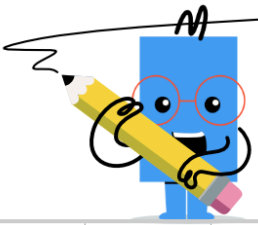
Name

Logarithms - Change of Base - Single (Integers) To Fraction



1 Convert the given logarithm to the equivalent in base 3

$\log_9 12$

A $\frac{\log_9 12}{\log_9 3}$

B $\frac{\log_3 12}{\log_3 9}$

C $\frac{\log_{12} 9}{\log_{12} 3}$

D $\frac{\log_3 9}{\log_3 12}$

2 Convert the given logarithm to the equivalent in base 5

$\log_7 6$

A $\frac{\log_5 7}{\log_5 6}$

B $\frac{\log_7 6}{\log_7 5}$

C $\frac{\log_5 6}{\log_5 7}$

D $\frac{\log_6 7}{\log_6 5}$

3 Convert the given logarithm to the equivalent in base 8

$\log_5 9$

A $\frac{\log_9 5}{\log_9 8}$

B $\frac{\log_5 9}{\log_5 8}$

C $\frac{\log_8 9}{\log_8 5}$

4 Convert the given logarithm to the equivalent in base 7

$\log_{10} 12$

A $\frac{\log_{10} 12}{\log_{10} 7}$

B $\frac{\log_{12} 10}{\log_{12} 7}$

C $\frac{\log_7 12}{\log_7 10}$

D $\frac{\log_{12} 7}{\log_{12} 10}$

5 Convert the given logarithm to the equivalent in base 5

$\log_2 13$

A $\frac{\log_2 13}{\log_2 5}$

B $\frac{\log_5 2}{\log_5 13}$

C $\frac{\log_5 13}{\log_5 2}$

D $\frac{\log_{13} 2}{\log_{13} 5}$

6 Convert the given logarithm to the equivalent in base 7

$\log_{10} 8$

A $\frac{\log_8 10}{\log_8 7}$

B $\frac{\log_7 10}{\log_7 8}$

C $\frac{\log_7 8}{\log_7 10}$

D $\frac{\log_8 7}{\log_8 10}$

7 Convert the given logarithm to the equivalent in base 9

$\log_7 10$

A $\frac{\log_{10} 9}{\log_{10} 7}$

B $\frac{\log_9 10}{\log_9 7}$

C $\frac{\log_9 7}{\log_9 10}$

D $\frac{\log_{10} 7}{\log_{10} 9}$

8 Convert the given logarithm to the equivalent in base 2

$\log_5 10$

A $\frac{\log_2 5}{\log_2 10}$

B $\frac{\log_2 10}{\log_2 5}$

C $\frac{\log_{10} 5}{\log_{10} 2}$

D $\frac{\log_{10} 2}{\log_{10} 5}$