



Logarithms - Change of Base - Single to Fraction (Variables)



1

Convert the given logarithm to the equivalent in base r

$$\log_z q$$

$$^A \frac{\log_r q}{\log_r z}$$

$$^B \frac{\log_q r}{\log_z r}$$

2

Convert the given logarithm to the equivalent in base n

$$\log_y r$$

$$^A \frac{\log_r n}{\log_y n}$$

$$^B \frac{\log_n r}{\log_n y}$$

3

Convert the given logarithm to the equivalent in base y

$$\log_z m$$

$$^A \frac{\log_y m}{\log_y z}$$

$$^B \frac{\log_m y}{\log_z y}$$

4

Convert the given logarithm to the equivalent in base m

$$\log_p z$$

$$^A \frac{\log_z m}{\log_p m}$$

$$^B \frac{\log_m z}{\log_m p}$$

5

Convert the given logarithm to the equivalent in base w

$$\log_p t$$

$$^A \frac{\log_t w}{\log_p w}$$

$$^B \frac{\log_w t}{\log_w p}$$

6

Convert the given logarithm to the equivalent in base x

$$\log_m q$$

$$^A \frac{\log_q x}{\log_m x}$$

$$^B \frac{\log_x q}{\log_x m}$$

7

Convert the given logarithm to the equivalent in base m

$$\log_y x$$

$$^A \frac{\log_m x}{\log_m y}$$

$$^B \frac{\log_x m}{\log_y m}$$

8

Convert the given logarithm to the equivalent in base n

$$\log_w p$$

$$^A \frac{\log_n p}{\log_n w}$$

$$^B \frac{\log_p n}{\log_w n}$$