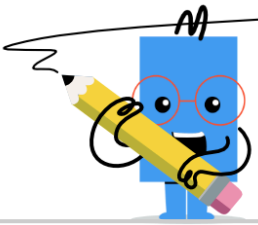
Name



# Logarithms - Quotient Property - Difference to Division as Fraction (Variables)

**1** Convert the given logarithm to its equivalent based on the quotient property

$$\log_x z - \log_x t$$

A $\log_x \frac{t}{z}$ B $\log_t \frac{x}{z}$ C $\log_x \frac{z}{t}$

**2** Convert the given logarithm to its equivalent based on the quotient property

$$\log_q x - \log_q p$$

A $\log_q \frac{x}{p}$ B $\log_p \frac{q}{x}$ C $\log_q \frac{p}{x}$

**3** Convert the given logarithm to its equivalent based on the quotient property

$$\log_t n - \log_t x$$

A $\log_t \frac{x}{n}$ B $\log_t \frac{n}{x}$ C $\log_x \frac{t}{n}$

**4** Convert the given logarithm to its equivalent based on the quotient property

$$\log_p z - \log_p t$$

A $\log_p \frac{t}{z}$ B $\log_t \frac{p}{z}$ C $\log_p \frac{z}{t}$

**5** Convert the given logarithm to its equivalent based on the quotient property

$$\log_t p - \log_t q$$

A $\log_t \frac{q}{p}$ B $\log_t \frac{p}{q}$ C $\log_q \frac{t}{p}$

**6** Convert the given logarithm to its equivalent based on the quotient property

$$\log_n r - \log_n y$$

A $\log_n \frac{y}{r}$ B $\log_y \frac{n}{r}$ C $\log_n \frac{r}{y}$

**7** Convert the given logarithm to its equivalent based on the quotient property

$$\log_m t - \log_m y$$

A $\log_m \frac{y}{t}$ B $\log_y \frac{m}{t}$ C $\log_m \frac{t}{y}$

**8** Convert the given logarithm to its equivalent based on the quotient property

$$\log_m z - \log_m p$$

A $\log_m \frac{p}{z}$ B $\log_p \frac{m}{z}$ C $\log_m \frac{z}{p}$