

Algebra 2

Properties of Logarithms

YAY MATH!

Students will be able to complete the following problems after watching the video:

Main properties:

$$\log xy = \log x + \log y$$

$$\log \frac{x}{y} = \log x - \log y$$

$$\log x^2 = 2\log x \quad (\text{the exponent moves to the front and becomes the coefficient})$$

$$\text{Given: } \log_3 5 = 1.47 \text{ and } \log_3 20 = 2.73$$

Solve:

$$\log_3 4 =$$

$$\log_3 20 =$$

$$3\log_5 x - \log_5 4 = \log_5 16$$

$$\log_4 x + \log_4(x - 6) = 2$$