

Write the equations in logarithmic form.

(a)  $512 = 8^3$

Let's rewrite this equation in logarithmic form according to the definition of the logarithm. We apply  $\log_8$  to both parts of the equation:

$$\log_8 512 = 3.$$

Here 8 is a base of the logarithm and 3 is an exponent.