

Logarithmic Functions - Step-by-Step Lesson**Simplify the following statements:**

a) $y = \log_5 x$

b) $y = \log_{16} x$

**Explanation:**

a) If $y = \log_b x$
Then $x = b^y$ (where $x > 0$ and $b > 1$)

Given that:

$y = \log_5 x$

Hence, $x = 5^y$

Answer: $x = 5^y$

b) Step 1: If $y = \log_b x$
Then $x = b^y$

Step 2: (where $x > 0$ and $b > 1$)

Given that:

$y = \log_{16} x$

Step 3: Answer: $x = 16^y$

