

Topic: Divide powers

Problem:

Solve for x.

$$\frac{13^5}{13^x} = 13^4$$

Answer:

$$x = 1$$

Hints (2 Total):

Hint 1 / 2

When powers have the same base, $\frac{x^m}{x^n} = x^{m-n}$

Hint 2 / 2

Let's apply that rule to our equation $\frac{13^5}{13^x} = 13^4$.

We can solve for x with the equation, $5 - x = 4$.

$$5 - x = 4.$$

$$x = 1$$