

### Question #72394, Math / Calculus

Given

$$x \cdot 3^x = 3^{18}$$

Let's rewrite the equation in order to solve it using the "solve" function in SMath Studio:

$$f(x) := x \cdot 3^x - 3^{18}$$

$$X := \text{solve}(f(x); x) = 15,5048917032312$$

The X lies between integers 15 and 16, thus the answer is k=15.

Solved in SMath Studio.