

Take the common logarithm of both sides: $\log 10^{5x+1} = \log 26$

Because $\log_b b^m = m$, the equation simplifies to: $5x + 1 = \log 26$

Solve for x : $5x = \log(26) - 1$, so $x = \frac{\log(26) - 1}{5}$

Use a calculator to evaluate the logarithm and find the value of x .

$$x = \frac{(1.41497\dots) - 1}{5} = \frac{0.41497\dots}{5} = 0.08299\dots$$