

Take the common logarithm of both sides: $\log 10^{2x-3} = \log 50$

Because $\log_b b^m = m$, the equation simplifies to: $2x - 3 = \log 50$

Solve for x : $2x = \log(50) + 3$, so $x = \frac{\log(50) + 3}{2}$

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

$$x = \frac{(1.69897\dots) + 3}{2} = \frac{4.69897\dots}{2} = 2.34948\dots$$