You probably followed the incorrect order of operations. This would have been the answer if the problem were to simplify $\left(\dfrac{x^5}{x^{10}}\right)^4$. To follow the correct order of operations, you must simplify the numerator *first*. To do this you need to use the power rule: $\left(x^a\right)^b = x^{a \cdot b}$. *Then* use the quotient rule.