1. A variable force moves an object from 0 to 5 on the number line (units in meters). At any point x between 0 and 5, the force is $\dfrac{2x}{x^2 + 1}$ Newtons. Find the work done in moving the object from 0 to 5.

1. A variable force moves an object from $\ln(\pi/4)$ to $\ln(\pi/2)$ on the number line (units in meters).
    At any point x between $\ln(\pi/4)$ and $\ln(\pi/2)$, the force is $e^x \cos(e^x)$ Newtons.
    Find the work done in moving the object from $\ln(\pi/4)$ to $\ln(\pi/2)$.