

Exercise 38

Find the exact value of each expression.

(a) $e^{-\ln 2}$

(b) $e^{\ln(\ln e^3)}$

Solution**Part (a)**

$$e^{-\ln 2} = e^{\ln 2^{-1}} = 2^{-1} = \frac{1}{2}$$

Part (b)

$$e^{\ln(\ln e^3)} = \ln e^3 = 3 \ln e = 3$$