

1. Simplify each expression to a single numeric value

a. $\log_2(128)$

c. $e^{3\ln(5)}$

b. $\log_3\left(\frac{1}{81}\right)$

d. $\ln(2e^2) - \ln(2e^{-3})$

2. Solve the given equation for x

a. $\ln(x + 1) = 3$

b. $\ln(x + 3) + \ln(x) = \ln(4)$