

Properties of Logarithms Handout

Instructions. Use the Properties

$$\ln(ab) = \ln(a) + \ln(b)$$

$$\ln\left(\frac{a}{b}\right) = \ln(a) - \ln(b)$$

$$\ln(a^r) = r \ln(a)$$

and the approximations $\ln(2) \approx 0.7$ and $\ln(3) \approx 1.1$ to approximate:

1. $\ln\left(\frac{1}{3}\right) =$

2. $\ln(6) =$

3. $\ln(8) =$

4. $\ln(12) =$

5. $\ln\left(\frac{3}{4}\right) =$

6. $\ln(27) =$

7. $\ln(\sqrt{3}) =$

8. $\ln(\sqrt[3]{4}) =$