

Practice for 3.3 Properties of logarithms

The following problems will help you practice the material you learned today. Once you are finished check your solutions. Once done, you can work on your WeBWork homework.

1. Expand these to a sum/difference of logs.

$$\log \frac{ab^2}{c} \qquad \ln \left(\frac{a}{2b} \right)^3$$

2. Put these in a single logarithmic expression.

$$\ln a - 3 \ln b + \frac{1}{2} \ln c \qquad 2 \log a - 5 \log b$$

3. If $\log 2 = .301$ and $\log 3 = .477$, determine the value of these by turning them into expressions involving only $\log 2$ and $\log 3$.

$$\log \frac{8}{9} \qquad \log \frac{\sqrt{6}}{24}$$

4. Earthquakes of magnitude 3.4 are common in California. How many times more powerful is that than a minimal quake?