

Classwork 12
Intermediate Algebra MTH 35
Topic: Logarithms

Name: _____

Evaluate the expression using Laws of Logarithms.

1. $\log_2 6 - \log_3 15 + \log_2 20$

2. $\log_4 16^{100} + \log_4 64$

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

Use Laws of Logarithms to expand or combine the expressions.

4. (Expand) $\log_3 x \sqrt{y} z^2$

5. (Combine) $\ln(a + b) + \ln(a - b) - \ln c$

6. (Expand) $\log \frac{x^2 y^3}{z^5 w^4}$