## **Advanced Math**

3-3 Laws of Logarithms

The answer to a logarithm is \_\_\_\_\_.

Laws of Exponents	Laws of Logarithms -
1) $x^m x^n =$	1)
2) $\frac{x^m}{x^n} =$	2)
3) $(x^m)^n =$	3)

Evaluate the logarithm. Round to three decimal places.

11) 
$$\log_{3} 7$$

Use laws of logarithms to write the expression as a sum, difference, and/or constant multiple of logarithms.

31) 
$$\ln z(z-1)^2, z>1$$

Express as a logarithm of a single number or expression.

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49) \ln x - 3\ln(x+1)
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Find the exact value of the logarithm if possible without a calculator.

75)  $\log_5 75 - \log_5 3$ 

Assignment:
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12-38 even,
42-60 even,
70-82 even.