

Name _____
Mr. Schlansky

Date _____
Algebra II

Logarithm Rules

Express as multiple logs

1. $\log xy$

2. $\log \frac{7}{x}$

3. $\log_5 x^3$

4. $\log_9 \frac{x^4 y^2}{z}$

5. $\ln x^3 y^2$

6. $\log_x \frac{a^2 b}{c^4}$

$$7. \log_4 \frac{a^5 b^3}{c^6}$$

$$8. \ln \frac{\sqrt{x}}{y^3}$$

$$9. \log_7 \frac{x^5 y}{\sqrt[3]{z}}$$

$$10. \log \frac{m^3 \sqrt{n}}{k^2}$$