

Algebra 2 Honors
Homework – Logarithmic Properties

Name _____

1. Expand: $\log_3 4x$

1. _____

2. Expand: $\log_2 \frac{2}{5}$

2. _____

3. Expand: $\log_7 5x^3yz^2$

3. _____

4. Condense: $\log_4 7 - \log_4 10$

4. _____

5. Condense: $2 \log x + \log 11$

5. _____

6. Condense: $5 \log_4 2 + 7 \log_4 x + 4 \log_4 y$

6. _____

For questions 7 – 9, use the change of base formula to evaluate the logarithm.

7. $\log_4 7$

7. _____

8. $\log_3 15$

8. _____

9. $\log_3 6$

9. _____