

MATH 114 - Reading Assignment 22 - Section 4.5 - Spring 2008

_____ is my name, don't wear it out!

Match the expression in the left-hand column with the equivalent expression in the right-hand column.

- | | | |
|-------|--------------------------------------|--------------------------|
| _____ | 1. $\log_a 1$ | A. M |
| _____ | 2. $\log_a a$ | B. $\log_a M$ |
| _____ | 3. $a^{\log_a M}$ | C. $\log_a M + \log_a N$ |
| _____ | 4. $\log_a a^r$ | D. 1 |
| _____ | 5. $\log_a (MN)$ | E. $\log_a M - \log_a N$ |
| _____ | 6. $\log_a \left(\frac{M}{N}\right)$ | F. $r \log_a M$ |
| _____ | 7. $\log_a M^r$ | G. 0 |
| _____ | 8. $\frac{\ln M}{\ln a}$ | H. r |

9. What are the two properties of logarithms listed in this section that are consequences of the fact that logarithmic functions are one-to-one?