

Log Properties Worksheet

Name _____

Match the items in right-hand and left-hand column so that they make a true statement (identity).

1. _____ $\log_a 1 =$

2. _____ $\log_a a =$

3. _____ $a^{\log_a M} =$

4. _____ $\log_a a^r =$

5. _____ $\log_a (MN) =$

6. _____ $\log_a \left(\frac{M}{N}\right) =$

7. _____ $\log_a M^r =$

8. _____ If $M=N$ then

9. _____ $\frac{\log_b M}{\log_b a} =$

10. _____ If $\log_a M = \log_a N$ then

11. _____ If $y = \log_a X$ then

A. _____ $= r$

B. _____ $= \log_a M - \log_a N$

C. _____ $\log_a M = \log_a N$

D. _____ $= 0$

E. _____ $= r \log_a M$

F. _____ $M=N$

G. _____ $= \log_a M$

H. _____ $= \log_a M + \log_a N$

I. _____ $a^y = x$

J. _____ $= 1$

K. _____ $= M$