

Name _____

Date _____

Converting Between Logarithmic and Exponential Forms - Matching Worksheet

Write the letter of the answer that matches the problem.

- | | | |
|-------|---|----------------------|
| _____ | 1. Express the exponential form in logarithmic form: $3^2 = 9$ | a. $\log_4 64 = 3$ |
| _____ | 2. Express the logarithmic form in exponential form: $\log_2 4 = 2$ | b. $3^5 = 243$ |
| _____ | 3. Express the exponential form in logarithmic form: $6^2 = 36$ | c. $2^2 = 4$ |
| _____ | 4. Express the logarithmic form in exponential form: $\log_6 216 = 3$ | d. $10^2 = 100$ |
| _____ | 5. Express the exponential form in logarithmic form: $4^3 = 64$ | e. $4^5 = 1024$ |
| _____ | 6. Express the logarithmic form in exponential form: $\log_4 1024 = 5$ | f. $6^3 = 216$ |
| _____ | 7. Express the exponential form in logarithmic form: $6^4 = 1296$ | g. $\log_3 9 = 2$ |
| _____ | 8. Express the logarithmic form in exponential form: $\log_3 243 = 5$ | h. $\log_9 81 = 2$ |
| _____ | 9. Express the exponential form in logarithmic form: $9^2 = 81$ | i. $\log_6 1296 = 4$ |
| _____ | 10. Express the logarithmic form in exponential form: $\log_{10} 100 = 2$ | j. $\log_6 36 = 2$ |

