

Name \_\_\_\_\_

Date \_\_\_\_\_

## Converting Between Logarithmic and Exponential Functions - Matching Worksheet

Write the letter of the answer that matches the problem.

- |       |   |                        |
|-------|---|------------------------|
| _____ | 1. Express exponential form in logarithmic form: $3^3 = 27$           | a. $\log_3 81 = 4$     |
| _____ | 2. Express logarithmic form in exponential form: $\log_9 729 = 3$     | b. $\log_{18} 324 = 2$ |
| _____ | 3. Express exponential form in logarithmic form: $2^6 = 64$           | c. $9^3 = 729$         |
| _____ | 4. Express logarithmic form in exponential form: $\log_{12} 144 = 2$  | d. $\log_4 256 = 4$    |
| _____ | 5. Express exponential form in logarithmic form: $3^4 = 81$           | e. $13^2 = 169$        |
| _____ | 6. Express logarithmic form in exponential form: $\log_{13} 169 = 2$  | f. $20^2 = 400$        |
| _____ | 7. Express exponential form in logarithmic form: $4^4 = 256$          | g. $\log_3 27 = 3$     |
| _____ | 8. Express logarithmic form in exponential form: $\log_{25} 625 = 2$  | h. $12^2 = 144$        |
| _____ | 9. Express exponential form in logarithmic form: $18^2 = 324$         | i. $25^2 = 625$        |
| _____ | 10. Express logarithmic form in exponential form: $\log_{20} 400 = 2$ | j. $\log_2 64 = 6$     |

