Logarithms — Both directions

Name: _____ Date: _____

Work out each logarithm, or find the missing number.

1. $\log_5 125 =$ _____
2. $\log_3 \frac{1}{9} =$ _____
3. $\log_2 256 =$ _____
4. $\log_3 729 =$ _____
5. $\log_4$ _____ $= 2$
6. $\log_{10} 1000 =$ _____
7. $\log_9$ _____ $= 2$
8. $\log_2$ _____ $= 8$
9. $\log_3$ _____ $= 2$
10. $\log_5$ _____ $= 2$

Logarithms · Both directions — Answer key

1. $\log_5 125 = 3$
2. $\log_3 1/9 = -2$
3. $\log_2 256 = 8$
4. $\log_3 729 = 6$
5. $\log_4 16 = 2$
6. $\log_{10} 1000 = 3$
7. $\log_9 81 = 2$
8. $\log_2 256 = 8$
9. $\log_3 9 = 2$
10. $\log_5 25 = 2$