

Math Worksheets

Rewriting Logarithms

 Rewrite each equation in exponential form.

1) $\log_3 27 = 3$

2) $\log_2 128 = 7$

3) $\log_6 1,296 = 4$

4) $\log_5 625 = 4$

5) $\log_{11} 121 = 2$

6) $\log_{12} 1,728 = 3$

7) $\log_9 729 = 3$

8) $\log_3 729 = 6$

9) $\log_{10} 10,000 = 4$

10) $\log_7 343 = 3$

11) $\log_4 1,024 = 5$

12) $\log_{12} 144 = 2$

13) $\log_{13} 2,197 = 3$

14) $\log_{25} 5 = \frac{1}{2}$

15) $\log_{81} 3 = \frac{1}{4}$

16) $\log_{3,125} 5 = \frac{1}{5}$

17) $\log_{1,000} 10 = \frac{1}{3}$

18) $\log_5 \frac{1}{125} = -3$

19) $\log_4 \frac{1}{16} = -2$

20) $\log_a \frac{7}{4} = b$

 Rewrite each exponential equation in logarithmic form.

21) $2^5 = 32$

22) $4^3 = 64$

23) $5^4 = 625$

24) $11^3 = 1,331$

25) $3^5 = 243$

26) $6^4 = 1,296$

27) $7^4 = 2,401$

28) $9^3 = 729$

29) $4^{-5} = \frac{1}{1,024}$

30) $3^{-8} = \frac{1}{6,561}$

31) $11^{-2} = \frac{1}{121}$

32) $12^{-3} = \frac{1}{1,728}$

33) $4^{-5} = \frac{1}{1,024}$

34) $10^{-5} = \frac{1}{100,000}$

Answers of Worksheets

Rewriting Logarithms

$$1) 3^3 = 27$$

$$2) 2^7 = 128$$

$$3) 6^4 = 1,296$$

$$4) 5^4 = 625$$

$$5) 11^2 = 121$$

$$6) 12^3 = 1,728$$

$$7) 9^3 = 729$$

$$8) 3^6 = 729$$

$$9) 10^4 = 10,000$$

$$10) 7^3 = 343$$

$$11) 4^5 = 1,024$$

$$12) 12^2 = 144$$

$$13) 13^3 = 2,197$$

$$14) 25^{\frac{1}{2}} = 5$$

$$15) 81^{\frac{1}{4}} = 3$$

$$16) 3,125^{\frac{1}{5}} = 5$$

$$17) 1,000^{\frac{1}{3}} = 10$$

$$18) 5^{-3} = \frac{1}{125}$$

$$19) 4^{-2} = \frac{1}{16}$$

$$20) a^b = \frac{7}{4}$$

$$21) \log_2 32 = 5$$

$$22) \log_4 64 = 3$$

$$23) \log_5 625 = 4$$

$$24) \log_{11} 1,331 = 3$$

$$25) \log_3 243 = 5$$

$$26) \log_6 1,296 = 4$$

$$27) \log_7 2,401 = 4$$

$$28) \log_9 729 = 3$$

$$29) \log_4 \frac{1}{1,024} = -5$$

$$30) \log_3 \frac{1}{6,561} = -8$$

$$31) \log_{11} \frac{1}{121} = -2$$

$$32) \log_{12} \frac{1}{1,728} = -3$$

$$33) \log_4 \frac{1}{1,024} = -5$$

$$34) \log_{10} \frac{1}{100,000} = -5$$