

Log Functions and Exponential Functions as Inverses

Period _____

Find the inverse of each function.

1) $y = \log_4 x + 6$

2) $y = \ln (x + 3)$

3) $y = \ln (x - 5)$

4) $y = \ln x + 3$

5) $y = \log_4 (3x)$

6) $y = \log_6 (x + 3)$

7) $y = \log_2 (x - 1)$

8) $y = \log_5 (2x)$

9) $y = \log_3 (x + 7)$

10) $y = \log_3 (x - 8)$

$$11) \ y = 5^x + 6$$

$$12) \ y = -\frac{5^x}{3}$$

$$13) \ y = 5^x - 7$$

$$14) \ y = 4^x + 9$$

$$15) \ y = \frac{4^x}{2}$$

$$16) \ y = \frac{5^x}{3}$$

$$17) \ y = -\frac{6^x}{4}$$

$$18) \ y = 4^x - 7$$

$$19) \ y = \frac{3^x}{2}$$

$$20) \ y = e^x + 9$$

Answers to Log Functions and Exponential Functions as Inverses

1) $y = 4^{x-6}$

2) $y = e^x - 3$

3) $y = e^x + 5$

4) $y = e^{x-3}$

5) $y = \frac{4^x}{3}$

6) $y = 6^x - 3$

7) $y = 2^x + 1$

8) $y = \frac{5^x}{2}$

9) $y = 3^x - 7$

10) $y = 3^x + 8$

11) $y = \log_5 (x - 6)$

12) $y = \log_5 -3x$

13) $y = \log_5 (x + 7)$

14) $y = \log_4 (x - 9)$

15) $y = \log_4 2x$

16) $y = \log_5 3x$

17) $y = \log_6 -4x$

18) $y = \log_4 (x + 7)$

19) $y = \log_3 2x$

20) $y = \ln (x - 9)$