

Inverse Functions - Logs and Exponential Practice Date _____ Period _____

Find the inverse of each function.

1) $y = \log_5(-3x)$

2) $y = -\log_6 x$

3) $y = 3 \log_{\frac{1}{2}} x$

4) $y = 6 \log_5 x$

5) $y = e^x + 6$

6) $y = -\frac{6^x}{3}$

7) $y = -\frac{e^x}{3}$

8) $y = e^x - 9$

9) $y = \log_2(x + 5)$

10) $y = \log_4 x + 10$

11) $y = \log_2 x - 10$

12) $y = \ln(x + 10)$

Find the inverse of each function.

1) $y = \log_5 (-3x)$

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

2) $y = -\log_6 x$

$$y = \frac{1}{6^x}$$

3) $y = 3 \log_{\frac{1}{2}} x$

$$y = \frac{1}{2^{\frac{x}{3}}}$$

4) $y = 6 \log_5 x$

$$y = 5^{\frac{x}{6}}$$

5) $y = e^x + 6$

$$y = \ln (x - 6)$$

6) $y = -\frac{6^x}{3}$

$$y = \log_6 -3x$$

7) $y = -\frac{e^x}{3}$

$$y = \ln -3x$$

8) $y = e^x - 9$

$$y = \ln (x + 9)$$

9) $y = \log_2 (x + 5)$

$$y = 2^x - 5$$

10) $y = \log_4 x + 10$

$$y = 4^{x-10}$$

11) $y = \log_2 x - 10$

$$y = 2^{x+10}$$

12) $y = \ln (x + 10)$

$$y = e^x - 10$$