

U4 Day 2 HW

Date _____ Period _____

Find the inverse of each function.

1) $y = \log_6 (x + 8)$

2) $y = \log_2 3^x$

3) $y = \log_x 5 + 6$

4) $y = \log_2 5^x$

5) $y = \log_6 x + 7$

6) $y = 3 \log_6 x$

7) $y = 4 \log_5 x$

8) $y = \log_6 x - 6$

9) $y = \log_6 x^3$

10) $y = \log_6 (x + 4)$

11) $y = \log_5 x^4$

12) $y = 10 \log_3 x$

13) $y = -8 \log_2 x$

14) $y = -4 \log_6 x$

15) $y = \log_3 x - 7$

16) $y = -9 \log_2 x$

17) $y = \log_2 x^3$

18) $y = \log_3 (x - 3)$

19) $y = \log_3 x + 2$

20) $y = \log_3 (x - 5)$

$$21) y = -2 \log_5 x - 9$$

$$22) y = \log_2 (-2 \cdot 3^x)$$

$$23) y = -9 \log_6 (x + 10)$$

$$24) y = \log_5 (4 \cdot 2^x)$$

$$25) y = -3 \log_5 (x + 9)$$

$$26) y = \log_{\frac{1}{2}} (3x^3)$$

$$27) y = \log_4 (4x) - 10$$

$$28) y = 9 \log_6 x - 6$$

U4 Day 2 HW

Date _____ Period _____

Find the inverse of each function.

1) $y = \log_6 (x + 8)$

$$y = 6^x - 8$$

2) $y = \log_2 3^x$

$$y = \log_3 2^x$$

3) $y = \log_x 5 + 6$

$$y = 5^{\frac{1}{x-6}}$$

4) $y = \log_2 5^x$

$$y = \log_5 2^x$$

5) $y = \log_6 x + 7$

$$y = 6^{x-7}$$

6) $y = 3 \log_6 x$

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

7) $y = 4 \log_5 x$

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

8) $y = \log_6 x - 6$

$$y = 6^{x+6}$$

9) $y = \log_6 x^3$

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

10) $y = \log_6 (x + 4)$

$$y = 6^x - 4$$

11) $y = \log_5 x^4$

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

12) $y = 10 \log_3 x$

$$y = 3^{\frac{x}{10}}$$

13) $y = -8 \log_2 x$

$$y = 2^{-\frac{x}{8}}$$

14) $y = -4 \log_6 x$

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

15) $y = \log_3 x - 7$

$$y = 3^{x+7}$$

16) $y = -9 \log_2 x$

$$y = 2^{-\frac{x}{9}}$$

17) $y = \log_2 x^3$

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

18) $y = \log_3 (x - 3)$

$$y = 3^x + 3$$

19) $y = \log_3 x + 2$

$$y = 3^{x-2}$$

20) $y = \log_3 (x - 5)$

$$y = 3^x + 5$$

$$21) y = -2 \log_5 x - 9$$

$$y = 5^{\frac{-x-9}{2}}$$

$$23) y = -9 \log_6 (x + 10)$$

$$y = 6^{\frac{-x}{9} - 10}$$

$$25) y = -3 \log_5 (x + 9)$$

$$y = 5^{\frac{-x}{3} - 9}$$

$$27) y = \log_4 (4x) - 10$$

$$y = \frac{4^{x+10}}{4}$$

$$22) y = \log_2 (-2 \cdot 3^x)$$

$$y = \log_3 \frac{2^x}{-2}$$

$$24) y = \log_5 (4 \cdot 2^x)$$

$$y = \log_2 \frac{5^x}{4}$$

$$26) y = \log_{\frac{1}{2}} (3x^3) \quad y = \left(\frac{\left(\frac{1}{2} \right)^x}{3} \right)^{\frac{1}{3}}$$

$$28) y = 9 \log_6 x - 6$$

$$y = 6^{\frac{x+6}{9}}$$