

SM3-A HW #7 (Logarithms)

Date _____ Period _____

- a) Identify the domain
 b) Identify the range.
 c) Vertical Asymptote
 d) Describe how it is a transformation of its parent function.

1) $y = \log_4(x - 1) - 1$

2) $y = 3 \log_5(x - 2) + 4$

3) $y = \log_4(x + 2) + 4$

Use a calculator to approximate each to the nearest thousandth.

4) $\log 13$

5) $\ln 43$

Find the inverse of each function.

6) $y = \log_4(x + 8)$

7) $y = 10 \log_6 x$

8) $y = -3 \log_2 x$

9) $y = 10^x + 1$

10) $y = 2^x - 6$

11) $y = 3^x + 4$

12) $g(x) = \sqrt[5]{x + 1} - 2$

$g^{-1}(x) = ?$

Rewrite each equation in exponential form then solve for 'x'.

13) $\log_9 81 = x$

14) $\log_7 x = 2$

Rewrite each equation in logarithmic form.

15) $8^2 = 64$

16) $196^{\frac{1}{2}} = 14$