Name : _____ Score : _____

Teacher : _____ Date : _____

Inverse of Logarithms

Find each function's inverse.

1) $y = \log_7 x^3$

2) $y = \log 8x^5$

3) $y = \log_4 (5x - 9)$

4) $y = \log_6 (-5x^5 - 7)$

5) $y = \log_8 -7x^5$

6) $y = \log_2 -4x$

7) $y = 6\log_9 7x$

8) $y = \log 5x$

9) $y = \log (-4x - 3)$

10) $y = \log_9 x^3$

11) $y = \log_3 (9x^2 + 8)$

12) $y = 3\log_7 -3x$

13) $y = \log_5 (-9x^5 - 10)$

14) $y = \log 6x$

Name : _____ Score : _____

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Inverse of Logarithms

Find each function's inverse.

1) $y = \log_7 x^3$

$y = 7^{\frac{x}{3}}$

2) $y = \log 8x^5$

$y = \left(\frac{10^x}{8}\right)^{\frac{1}{5}}$

3) $y = \log_4 (5x - 9)$

$y = \frac{4^x+9}{5}$

4) $y = \log_6 (-5x^5 - 7)$

$y = \left(\frac{6^x+7}{-5}\right)^{\frac{1}{5}}$

5) $y = \log_8 -7x^5$

$y = \left(\frac{8^x}{-7}\right)^{\frac{1}{5}}$

6) $y = \log_2 -4x$

$y = \frac{2^x}{-4}$

7) $y = 6\log_9 7x$

$y = \frac{9^{\frac{x}{6}}}{7}$

8) $y = \log 5x$

$y = \frac{10^x}{5}$

9) $y = \log (-4x - 3)$

$y = \frac{10^x+3}{-4}$

10) $y = \log_9 x^3$

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

11) $y = \log_3 (9x^2 + 8)$

$y = \left(\frac{3^x-8}{9}\right)^{\frac{1}{2}}$

12) $y = 3\log_7 -3x$

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

13) $y = \log_5 (-9x^5 - 10)$

$y = \left(\frac{5^x+10}{-9}\right)^{\frac{1}{5}}$

14) $y = \log 6x$

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