



Function Inverse - Function to Inverse (Exponential/Logarithmic)

1

given: Find the inverse function of $c(x)$

$$c(x) = -5 \log_2(3x)$$

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

A	B
$c^{-1}(x) = \frac{2^{\frac{x}{-5}}}{3}$	$c^{-1}(x) = \frac{3^{\frac{x}{-5}}}{2}$

2

given: Find the inverse function of $c(x)$

$$c(x) = 3 \cdot -2^{-5x}$$

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

A	B
$c^{-1}(x) = \frac{\log_2 -2^{\frac{x}{-5}}}{3}$	$c^{-1}(x) = \frac{\log_2 -2^{\frac{x}{3}}}{-5}$

3

given: Find the inverse function of $n(x)$

$$n(x) = 5^{-2x}$$

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

A	B
$n^{-1}(x) = \frac{\log_5 -2}{x}$	$n^{-1}(x) = \frac{\log_5 x}{-2}$

4

given: Find the inverse function of $d(x)$

$$d(x) = -3 \log(2x)$$

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

A	B
$d^{-1}(x) = 2^{\frac{10^x}{-3}}$	$d^{-1}(x) = \frac{10^{-\frac{x}{3}}}{2}$

5

given: Find the inverse function of $z(x)$

$$z(x) = -3 \log(-4x)$$

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

A	B
$z^{-1}(x) = -4^{\frac{10^{-\frac{x}{4}}}{-3}}$	$z^{-1}(x) = \frac{10^{\frac{x}{-3}}}{-4}$

6

given: Find the inverse function of $y(x)$

$$y(x) = 4 \log_3(2x)$$

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

A	B
$y^{-1}(x) = \frac{3^{\frac{x}{4}}}{2}$	$y^{-1}(x) = \frac{3^{\frac{x}{2}}}{4}$

7

given: Find the inverse function of $b(x)$

$$b(x) = 3 \log(5x)$$

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

A	B
$b^{-1}(x) = \frac{10^{\frac{x}{3}}}{5}$	$b^{-1}(x) = 5^{\frac{10^{\frac{x}{3}}}{3}}$

8

given: Find the inverse function of $m(x)$

$$m(x) = -2 \ln(-3x)$$

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

A	B
$m^{-1}(x) = e^{\frac{-3^x}{-3}}$	$m^{-1}(x) = \frac{e^{-\frac{x}{2}}}{-3}$