

## Finding Inverses of Exponential Functions

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**Find the inverse of each function.**

1)  $y = 4^x$

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

3)  $y = 5^x$

4)  $y = 3^x$

5)  $y = 2^x$

6)  $y = 6^x$

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

8)  $y = 4^x + 8$

9)  $y = \frac{1}{2 \cdot 4^x}$

10)  $y = \frac{4^x}{2}$

11)  $y = x$

12)  $y = 5^x - 2$

13)  $y = 3^x - 5$

14)  $y = 2^x + 6$

15)  $y = 2^{\frac{x}{4}}$

16)  $y = 2^x - 9$

17)  $y = 4^x + 10$

18)  $y = 6^x + 4$

## Finding Inverses of Exponential Functions

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**Find the inverse of each function.**

1)  $y = 4^x$

$y = \log_4 x$

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

$y = \log_x 3$

3)  $y = 5^x$

$y = \log_5 x$

4)  $y = 3^x$

$y = \log_3 x$

5)  $y = 2^x$

$y = \log_2 x$

6)  $y = 6^x$

$y = \log_6 x$

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

$y = \log x^3$

8)  $y = 4^x + 8$

$y = \log_4 (x - 8)$

9)  $y = \frac{1}{2 \cdot 4^x}$

$y = \log_{\frac{1}{4}} 2x$

10)  $y = \frac{4^x}{2}$

$y = \log_4 2x$

11)  $y = x$

$y = x$

12)  $y = 5^x - 2$

$y = \log_5 (x + 2)$

13)  $y = 3^x - 5$

$y = \log_3 (x + 5)$

14)  $y = 2^x + 6$

$y = \log_2 (x - 6)$

15)  $y = 2^{\frac{x}{4}}$

$y = \log_2 x^4$

16)  $y = 2^x - 9$

$y = \log_2 (x + 9)$

17)  $y = 4^x + 10$

$y = \log_4 (x - 10)$

18)  $y = 6^x + 4$

$y = \log_6 (x - 4)$