

Unit 4 Quiz 2 Name _____ Period _____ Date _____

Express each exponential statement as a logarithmic statement.

a) $2^{-1} = \frac{1}{2}$

b) $3^2 = 9$

Express each logarithmic statement as an exponential statement.

a) $\log_2 4 = 2$

b) $\log_3 \frac{1}{27} = -3$

Evaluate each expression without using a calculator.

a) $2^{\log_2 3}$

b) $\log_4 4^{4x}$

c) $\log_3 3$

d) $\log_5 1$

e) $\log_3 12 - \log_3 2$

f) $\frac{\log 16}{\log 2}$

Find the inverse of the function

a) $f(x) = -2x + 4$

b) $f(x) = \ln x$

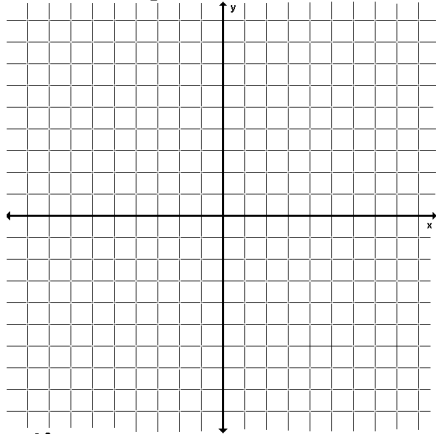
Solve for x by using common base.

c) $2^{x+1} = 16^x$

d) $3^{x-1} = 27$

Let $f(x) = \log_3(x - 2) + 1$

a) Sketch the parent function and $f(x)$.



b) Identify the transformations.

c) Identify the vertical asymptote of $f(x)$.

Let $f(x) = 3^x$. $g(x)$ is the inverse of $f(x)$. Write the equation of $g(x)$ and graph both equations.

$g(x) =$ _____

