



Precalculus: Logarithmic and Exponential Functions

Name _____

Date _____

Rewrite each equation in logarithmic form

(1) $9^x = v$

(2) $8^n = x$

(3) $2^t = n$

(4) $4^n = y$

(5) $9^n = u$

(6) $e^z = x$

Rewrite the following equations in exponential form

(7) $\log_4(w) = y$

(8) $\ln(t) = q$

(9) $\log_4(u) = n$

(10) $\log_6(p) = n$

(11) $\log_4(q) = y$

(12) $\log_6(n) = t$



Answers

Rewrite each equation in logarithmic form

$$(1) \quad 9^x = v$$

$$\log_9(v) = x$$

$$(3) \quad 2^t = n$$

$$\log_2(n) = t$$

$$(5) \quad 9^n = u$$

$$\log_9(u) = n$$

$$(2) \quad 8^n = x$$

$$\log_8(x) = n$$

$$(4) \quad 4^n = y$$

$$\log_4(y) = n$$

$$(6) \quad e^z = x$$

$$\ln(x) = z$$

Rewrite the following equations in exponential form

$$(7) \quad \log_4(w) = y$$

$$4^y = w$$

$$(8) \quad \ln(t) = q$$

$$e^q = t$$

$$(9) \quad \log_4(u) = n$$

$$4^n = u$$

$$(10) \quad \log_6(p) = n$$

$$6^n = p$$

$$(11) \quad \log_4(q) = y$$

$$4^y = q$$

$$(12) \quad \log_6(n) = t$$

$$6^t = n$$