



Precalculus: Logarithmic and Exponential Functions

Name _____ Date _____

Rewrite each equation in logarithmic form

(1) $9^w = q$

(2) $8^w = n$

(3) $7^a = v$

(4) $10^u = p$

(5) $7^z = w$

(6) $2^z = q$

Rewrite the following equations in exponential form

(7) $\log_7(v) = u$

(8) $\log_7(w) = q$

(9) $\log(p) = t$

(10) $\log_v(z) = q$

(11) $\log_5(x) = q$

(12) $\log_6(p) = u$



Answers

Rewrite each equation in logarithmic form

$$(1) \quad 9^w = q$$

$$\log_9(q) = w$$

$$(3) \quad 7^q = v$$

$$\log_7(v) = q$$

$$(5) \quad 7^z = w$$

$$\log_7(w) = z$$

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

$$\log_8(n) = w$$

$$(4) \quad 10^u = p$$

$$\log(p) = u$$

$$(6) \quad 2^z = q$$

$$\log_2(q) = z$$

Rewrite the following equations in exponential form

$$(7) \quad \log_7(v) = u$$

$$7^u = v$$

$$(9) \quad \log(p) = t$$

$$10^t = p$$

$$(11) \quad \log_5(x) = q$$

$$5^q = x$$

$$(8) \quad \log_7(w) = q$$

$$7^q = w$$

$$(10) \quad \log_v(z) = q$$

$$v^q = z$$

$$(12) \quad \log_6(p) = u$$

$$6^u = p$$