

Name: Key Date: _____ Period: _____

AA4a and AA4b Quiz Review

LT AA4a: I can use the definition of logarithms to evaluate logarithms and convert between logarithmic and exponential forms. 10 8.5 7.5 5

Solve for x

1) $5^x - 10 = 80$
 $+10 +10$

$5^x = 90$

$x = \log_5 90$

$x \approx 2.80$

2) $3^{4x-2} = 27$

$4x-2 = \log_3 27$

$4x-2 = 3$

$4x = 5$

$x = 1.25$

3) $\log_4(5x) - \log_4(5) = 10$

$\log_4\left(\frac{5x}{5}\right) = 10$

$x = 4^{10}$

$= 1,048,576$

LT AA4b: I can graph exponential and logarithmic functions, showing intercepts and end behavior

10 8.5 7.5 5

Identify the transformation

4) $y = \log_5(x+2) - 4$

Log, ↑(5) increasing

L2, D4

$x = -2$ asymptote

5) $y = 3^{x-4} + 6$

ε, ↑(3) increasing

R4, u6

$y = 6$ asymptote