Name : _____ Score : _____

Logarithmic Equation

MS5

Solve each logarithmic equation.

1) $\log_8 (x-14) = \log_8 4 + 2 \log_8 5$

x =

2) $\log_4 (2-x) + \log_4 8 = 3 \log_4 6$

x =

3) $\log_5 2 = \log_5 (x+6$

x =

$\log_3 8$

5) $2 \log_6 x - \log_6 3 =$

x =

$\log_3 2$

7) $\log_7 (27+x) + \log$

x =

$= \log_5 24$

9) $4 \log_2 x - \log_2 8 = \log_2 32$

x =

10) $\log_7 (x+2) + \log_7 4 = \log_7 (6x-18)$

x =

Name : _____ **Answer key** Score : _____

MS5

Logarithmic Equation

Solve each logarithmic equation.

1) $\log_8 (x-14) = \log_8 4 + 2 \log_8 5$

x = **114**

2) $\log_4 (2-x) + \log_4 8 = 3 \log_4 6$

x = **–25**

3) $\log_5 2 = \log_5 (x+6$

x = **–51**

$\log_3 8$

5) $2 \log_6 x - \log_6 3 =$

x = **9**

$\log_3 2$

7) $\log_7 (27+x) + \log$

x = **–2**

$= \log_5 24$

9) $4 \log_2 x - \log_2 8 = \log_2 32$

x = **4**

10) $\log_7 (x+2) + \log_7 4 = \log_7 (6x-18)$

x = **13**