

## Logarithmic Equation

MS4

Solve each logarithmic equation.

1)  $3 \log_2 x - \log_2 6 = \log_2 36$

x = 

2)  $\log_3 x - 3 \log_3 2 = 2 \log_3 3$

x = 

3)  $\log_5 (x+3) + \log_5 \dots = \log_7 (3x-4)$

x = 

5)  $\log_2 x^2 + \log_2 8 = \dots + 4 \log_8 2$

x = 

7)  $\log_4 (11-x) + \log \dots - \log_6 6$

x = 

9)  $\log_5 (x-2) - \log_5 4 = \log_5 (2x+3)$

x = 

10)  $\log_3 (4+x) + \log_3 24 = 4 \log_3 6$

x = 

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**Logarithmic Equation**

MS4

Solve each logarithmic equation.

1)  $3 \log_2 x - \log_2 6 = \log_2 36$

x = **6**

2)  $\log_3 x - 3 \log_3 2 = 2 \log_3 3$

x = **72**

3)  $\log_5 (x+3) + \log_5 \dots = \log_7 (3x-4)$

x = **19**

5)  $\log_2 x^2 + \log_2 8 = \dots + 4 \log_8 2$

x = **1**

7)  $\log_4 (11-x) + \log \dots - \log_6 6$

x = **-16**

9)  $\log_5 (x-2) - \log_5 4 = \log_5 (2x+3)$

x = **-2**

10)  $\log_3 (4+x) + \log_3 24 = 4 \log_3 6$

x = **50**

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