

## Logarithmic Equation

MS3

Solve each logarithmic equation.

1)  $\log_3 (x-12) = \log_3 5 + 2 \log_3 3$

x = 

2)  $\log_2 (x-4) + 3 \log_2 2 = \log_2 (6x+4)$

x = 

3)  $\log_2 (5+x) + \log_2$

$= 2 \log_7 5$

x = 

5)  $\log_3 12 = \log_3 (x+)$

$= 2 \log_2 6$

x = 

7)  $\log_6 x - 2 \log_6 2 =$

$= \log_2 12$

x = 

9)  $\log_4 (x+4) + \log_4 2 = \log_4 (3x-7)$

x = 

10)  $3 \log_8 x - \log_8 7 = \log_8 49$

x = 

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**Logarithmic Equation**

MS3

Solve each logarithmic equation.

1)  $\log_3 (x-12) = \log_3 5 + 2 \log_3 3$

x = **57**

2)  $\log_2 (x-4) + 3 \log_2 2 = \log_2 (6x+4)$

x = **18**

3)  $\log_2 (5+x) + \log_2 2 = 2 \log_7 5$

x = **-1**

5)  $\log_3 12 = \log_3 (x+1) + 2 \log_2 6$

x = **44**

7)  $\log_6 x - 2 \log_6 2 = \log_2 12$

x = **64**

9)  $\log_4 (x+4) + \log_4 2 = \log_4 (3x-7)$

x = **15**

10)  $3 \log_8 x - \log_8 7 = \log_8 49$

x = **7**

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