

## Logarithmic Equation

MS2

Solve each logarithmic equation.

1)  $\log_6 x - \log_6 4 = 3 \log_6 4$

x = 

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

x = 

3)  $\log_3 (x-8) = \log_3$

x = 

=  $\log_5 28$

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

x = 

=  $4 \log_2 2$

7)  $\log_2 (3-x) + \log_2$

x = 

=  $\log_8 256$

9)  $\log_6 x^2 + \log_6 5 = 3 \log_6 5$

x = 

10)  $\log_2 (x+16) + \log_2 3 = \log_2 6$

x = 

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**Logarithmic Equation**

MS2

Solve each logarithmic equation.

1)  $\log_6 x - \log_6 4 = 3 \log_6 4$

x = **256**

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

x = **16**

3)  $\log_3 (x-8) = \log_3$

x = **134**

=  $\log_5 28$

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

x = **-27**

=  $4 \log_2 2$

7)  $\log_2 (3-x) + \log_2$

x = **-2**

=  $\log_8 256$

9)  $\log_6 x^2 + \log_6 5 = 3 \log_6 5$

x = **5**

10)  $\log_2 (x+16) + \log_2 3 = \log_2 6$

x = **-14**

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