

**Logarithmic Equation**

ES2

Solve each logarithmic equation.

1)  $\log_6 2x = \log_6 68$

x = 

2)  $2 \log_3 5 = \log_3 (x+46)$

x = 

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

x = 

4)  $\log_5 (4x+7) = \log_5 (3x+15)$

5)  $\log_4 (7x-3) = \log_4 15$

x = 

7)  $\log_7 (2x-17) = \log_7 5$

x = 

9)  $\log_2 (x+5) = 4 \log_2 7$

x = 

11)  $\log_3 (1-4x) = 2 \log_3 7$

x = 

12)  $\log_4 (3x-15) = \log_4 (x+67)$

x = 

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**Logarithmic Equation**

ES2

Solve each logarithmic equation.

1)  $\log_6 2x = \log_6 68$

x = **34**

2)  $2 \log_3 5 = \log_3 (x+46)$

x = **-21**

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

x = **20**

4)  $\log_5 (4x+7) = \log_5 (3x+15)$

5)  $\log_4 (7x-3) = \log_4 29$

x = **29**

7)  $\log_7 (2x-17) = \log_7 20$

x = **20**

9)  $\log_2 (x+5) = 4 \log_2 3$

x = **11**

11)  $\log_3 (1-4x) = 2 \log_3 7$

x = **-12**

12)  $\log_4 (3x-15) = \log_4 (x+67)$

x = **41**

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