

Logarithmic Equation

ES1

Solve each logarithmic equation.

1) $\log_5 (x+7) = \log_5 (2x+3)$

x =

2) $\log_2 (x+20) = \log_2 2$

x =

3) $\log_4 (3x-2) = \log_4 (x+18)$

x =

4) $\log_3 (5x+6) = 2 \log_3 6$

x =

5) $\log_6 (2x-1) = \log_6 27$

x =

6) $\log_5 24 = \log_5 (x+2)$

x =

7) $\log_7 (x+1) = \log_7 (2x+20)$

x =

8) $\log_4 (5x-3) = \log_4 (2x+36)$

x =

9) $3 \log_3 4 = \log_3 (x+10)$

x =

10) $\log_6 4x = \log_6 100$

x =

11) $\log_5 (2x+2) = \log_5 (3x+18)$

x =

12) $\log_2 (x+17) = 3 \log_2 2$

x =

Logarithmic Equation

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Solve each logarithmic equation.

1) $\log_5 (x+7) = \log_5 (2x+3)$

$x = 4$

2) $\log_2 (x+20) = \log_2 2$

$x = -18$

3) $\log_4 (3x-2) = \log_4 (x+18)$

$x = 10$

4) $\log_3 (5x+6) = 2 \log_3 6$

$x = 6$

5) $\log_6 (2x-1) = \log_6 27$

$x = 14$

6) $\log_5 24 = \log_5 (x+2)$

$x = 22$

7) $\log_7 (x+1) = \log_7 (2x+20)$

$x = -19$

8) $\log_4 (5x-3) = \log_4 (2x+36)$

$x = 13$

9) $3 \log_3 4 = \log_3 (x+10)$

$x = 54$

10) $\log_6 4x = \log_6 100$

$x = 25$

11) $\log_5 (2x+2) = \log_5 (3x+18)$

$x = -16$

12) $\log_2 (x+17) = 3 \log_2 2$

$x = -9$