

Name : _____

Score : _____

Logarithmic Equation

Common Logarithm: S1

Solve each logarithmic equation. Round the answer to two decimal places.

1) $3 \log_2 (x + 3) = 1.5$

x =

2) $\log_4 (x - 8) = 0.8$

x =

3) $\log_9 4x = 0.06$

x =

4) $8 \log_6 (x + 5) = 2.5$

x =

5) $\log_4 \left(\frac{4.2}{x} \right) = 3.5$

x =

6) $\log_5 (x - 4.5) = 0.01$

x =

7) $\log_7 (x - 6.2) = 1.3$

x =

8) $4 \log_3 (x + 1.52) = 0.8$

x =

9) $\log_2 8x = 2.7$

x =

10) $\log_3 \left(\frac{x}{0.9} \right) = 2.3$

x =

Answer key**Logarithmic Equation**

Common Logarithm: S1

Solve each logarithmic equation. Round the answer to two decimal places.

1) $3 \log_2 (x + 3) = 1.5$

$x = -1.59$

2) $\log_4 (x - 8) = 0.8$

$x = 11.03$

3) $\log_9 4x = 0.06$

$x = 0.29$

4) $8 \log_6 (x + 5) = 2.5$

$x = -3.25$

5) $\log_4 \left(\frac{4.2}{x} \right) = 3.5$

$x = 0.03$

6) $\log_5 (x - 4.5) = 0.01$

$x = 5.52$

7) $\log_7 (x - 6.2) = 1.3$

$x = 18.75$

8) $4 \log_3 (x + 1.52) = 0.8$

$x = -0.27$

9) $\log_2 8x = 2.7$

$x = 0.81$

10) $\log_3 \left(\frac{x}{0.9} \right) = 2.3$

$x = 11.26$