



Logarithmic Equations

Version 1

Name: _____

Date: _____

Score: _____

Direction: Solve each logarithmic equations. Check your solutions to exclude extraneous answers. Show all your answer in the space provided.

1) $\log_2(x+2) + \log_2(5) = \log_2(5)$

2) $\log_3(x+1) - \log_3(x+2) = \log_3(x-1)$

3) $\log_5(x^2 - 4x) = \log_5(x-4) + 1$

4) $\log_2\sqrt{-x+1} + 1 = 2$



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Direction: Solve each logarithmic equations. Check your solutions to exclude extraneous answers. Show all your answer in the space provided.

1) $\log_2(x+2) + \log_2(5) = \log_2(5)$

$$x = -1$$

2) $\log_3(x+1) - \log_3(x+2) = \log_3(x-1)$

$$x_1 = \sqrt{3}, x_2 = -\sqrt{3}$$

3) $\log_5(x^2 - 4x) = \log_5(x-4) + 1$

$$x = 5$$

4) $\log_2\sqrt{-x+1} + 1 = 2$

$$x = -3$$