# Logarithmic Equations

## Maze Activity






**FREEBIE!**

PREVIEW

Flamingo MATH
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# Logarithmic Maze Activity

What about a focused practice to help students solve basic logarithm and exponential equations? It's one of those concepts that students either "get it" or don't. You can copy this as a two-sided activity and have a race or relay. Students can work cooperatively or alone. Have them work the puzzle route in one color and the remainder of the problems in another color. Not all solutions are in the designated paths, so those could be used as extra credit if you like.

Lots of variety. Plenty of practice, at different levels.

I appreciate your comments, suggestions, and ideas.

PREVIEW

**Please visit my store for more engaging task card activities.**

# Logarithmic Equations Maze

**Directions:** Find the solution to each equation to "find the log" and solve the maze. SHOW YOUR WORK!

START: $\log_3 81 = x$

5

$\log_{27} x = \frac{1}{3}$

3

$\log_5 x = 2$

25

$\log_{32} x = \frac{1}{5}$

4 | $-4$ | 64 | $-64$ | $-25$ | 0.1 | 2

$\log_8 x = \frac{1}{3}$

2

$\log_4 x = 3$

12

$\log_9 x = \frac{1}{2}$

3

$\log 0.01 = x$

$-2$ | $-9$ | 10 | 6 | $-6$ | $-2$ | 10

$\log_{\frac{1}{3}} x = -2$

4

$\log_4 256 = x$

$\frac{1}{9}$

$\log_3 x = -2$

32

$\log_{\frac{1}{5}} x = 2$

9 | $\frac{1}{9}$ | 5 | $-9$ | 9 | $-6$ | $\frac{1}{25}$

$\log_{16} x = \frac{1}{4}$

2

$\log_2 64 = x$

6

$\log_{\sqrt{5}} 5 = x$

2

STOP!



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# Natural Logarithms Equations Maze

**Directions:** Find the solution to each equation to "find the log" and solve the maze. SHOW YOUR WORK!

START: $\ln e^x = 6$

$\ln x + \ln 3 = 4$

$\ln e^{x-2} = 14$

$e^{x-2} = 5$

4

$\frac{e^4}{3}$

$\ln 10$

6

$\frac{7}{2}$

$\ln\left(\frac{7}{2}\right)$

$\ln\left(\frac{2}{7}\right)$

16

$2 + ln5$

7

$\ln x + \ln 4x = 2$

$4e^x = 14$

$e^{\frac{x}{2}} = 4$

$e^{\ln 3x} = 12$

$\frac{e^2}{4}$

$\ln 3$

$4 \ln 2$

$\frac{e}{2}$

$\frac{e^3}{2}$

$2 \ln 7$

$\ln 4.5$

$\ln 8$

4

36

$-2 + \ln 2x = 1$

$41 - e^{2x} = 5$

$e^{2x-3} = 1$

$\ln x + \ln 5 = 3$

$2e^3$

$\frac{3}{2}$

$\ln 3$

$e^6$

$\frac{e^4 + 2}{3}$

$\ln 6$

$\frac{2}{3}$

$\ln 1.5$

$e^{1.5}$

$\frac{e^3}{5}$

$\ln(3x - 2) = 4$

$e^{4x} = 9$

$\ln(x + 1)^2 = 2$

STOP!

$\ln 20$

$\frac{\ln 3}{2}$

$e - 1$



PREVIEW

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