

M	A	T	H	O
Value of 2^x , when x is between 1 and 8	Multiples of 10 between $\frac{1}{100}$ and 1000	Perfect squares greater than 4, but less than 100.	Integers between -9 and -2 (inclusive)	Odd numbers between 3 and 13 (inclusive)

Directions:

- 1) Fill in appropriate values into your board. You get to place one "free" space.
- 2) When a value is read/placed on the board, simplify the expression and mark the spot, if you have it.
- 3) When you fill in 5 in a row or 4-corners, yell MATHO! and we'll check your answers.

Order	Question	Answer
M1	$\log_x 8 = 3$	2
M2	$\log_2 16$	4
M3	$\log_x 2 = \frac{1}{3}$	8
M4	$\log_x 16 = 1$	16
M5	$\log_x 2 = \frac{1}{5}$	32
M6	$\log_8 x = 2$	64
M7	$\log_2 x = 7$	128
M8	$\log_{256} x = 1$	256
A9	$\log x = -2$	1/100
A10	$\log x = -1$	1/10
A11	$\log x = 0$	1
A12	$\log x = 1$	10
A13	$\log x = 2$	100
A14	$\log x = 3$	1000
T15	$\log_3 x = 2$	9
T16	$\log_4 x = 2$	16
T17	$\log_5 x = 2$	25
T18	$\log_6 x = 2$	36
T19	$\log_7 x = 2$	49
T20	$\log_8 x = 2$	64
T21	$\log_9 x = 2$	81

Order	Question	Answer
H22	$\log \frac{1}{1,000,000,000}$	-9
H23	$\log_2 \frac{1}{256}$	-8
H24	$\log_3 \frac{1}{2187}$	-7
H25	$\log_4 4^{-6}$	-6
H26	$\log_p p^{-5}$	-5
H27	$\log .0001$	-4
H28	$\log_2 x = \frac{1}{8}$	-3
H29	$\log_3 \frac{1}{9} = x$	-2
O30	$\log_2 2 + \log_3 3 + \log_4 4$	3
O31	$\log_2 32$	5
O32	$\log 10,000,000$	7
O33	$\log_3 x = 2$	9
O34	$11 \cdot \log 10 + \log 1$	11
O35	$(\log_2 16)^2 - \log_4 16 - \log_5 5$	13

Teacher Notes:

1. "Order" Column is irrelevant, just organizational.
2. There are a couple duplicate values/questions, but they occur in different columns.
3. I suggest randomly choosing numbers from the "order" column to call.
4. I suggest keeping track of which expressions to aide in checking a "MATHO!".