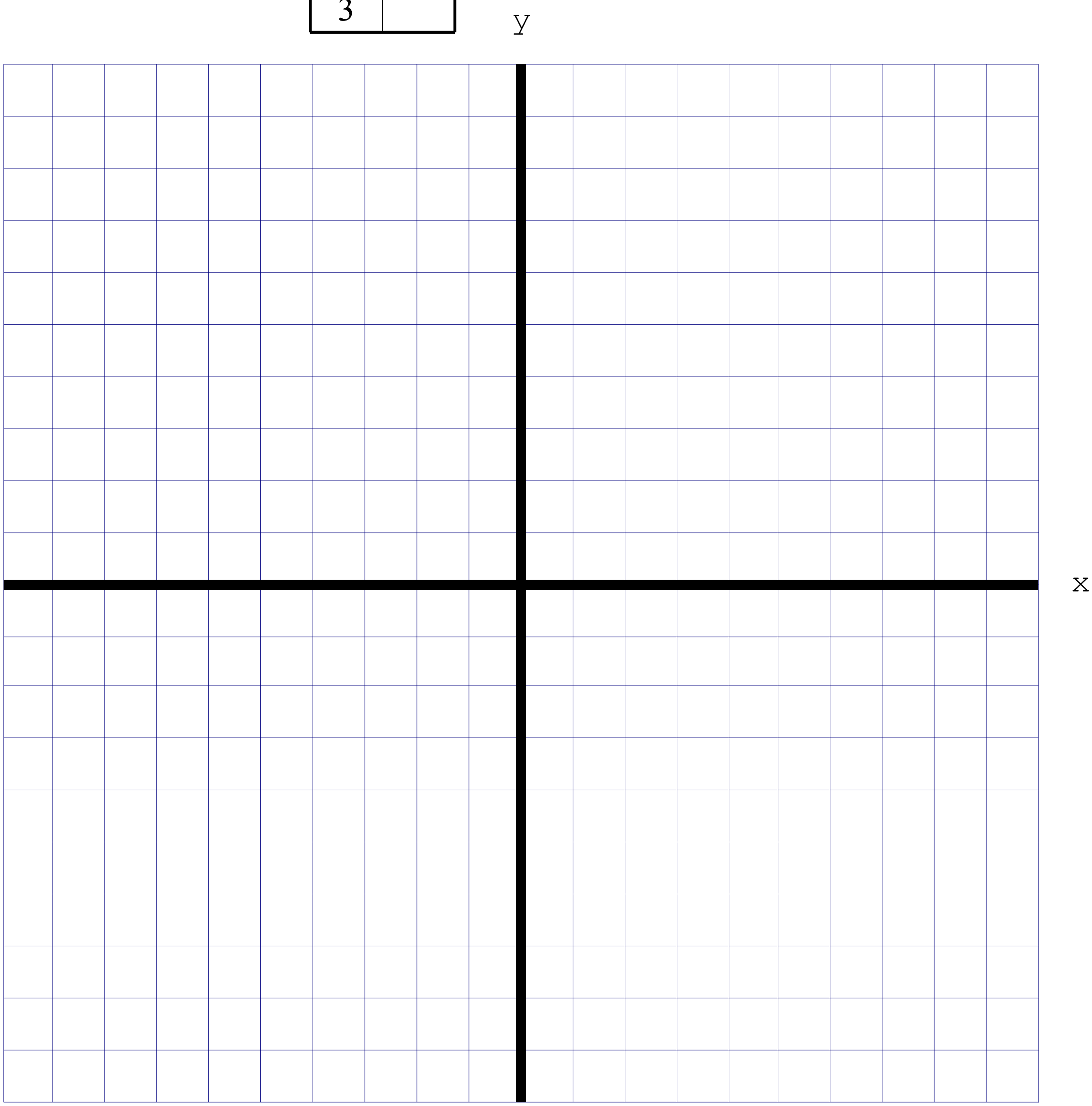
Graph $y = 2^x$.

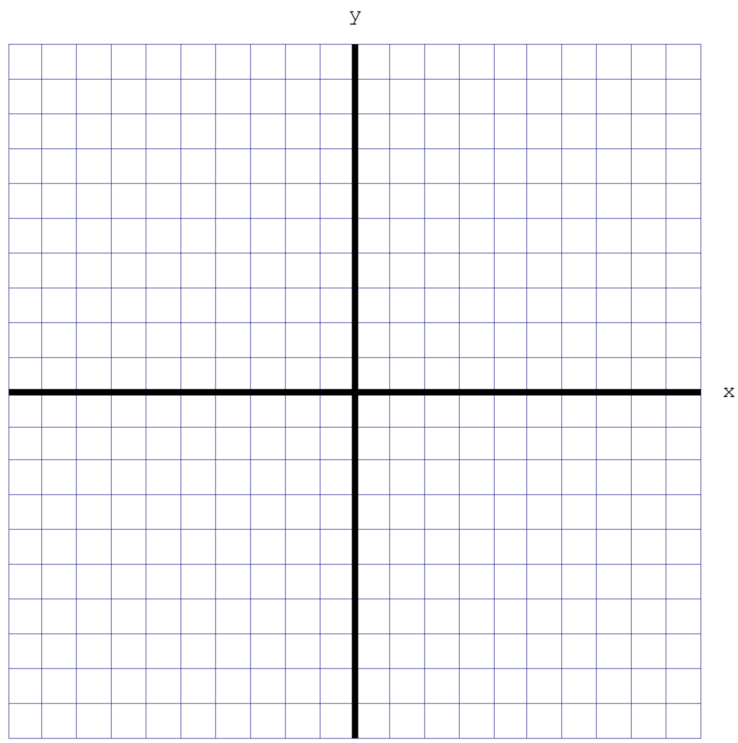
x	y
-2	
-1	
0	
1	
2	
3	



Recall what we discussed concerning inverses…

Function:

x	y
-2	¼
-1	½
0	1
1	2
2	4
3	8



Inverse:

x	y
¼	-2
½	-1
1	0
2	1
4	2
8	3

- The inverse of exponents are logarithms.

- Logarithmic Function: The logarithmic function $y = \log_a x$, where $a > 0$ and $a \neq 1$, is the inverse of the exponential function $y = a^x$. So, $y = \log_a x$ iff $x = a^y$.

Rewriting Exponents as Logarithms:

Rewriting Logarithms as Exponents:

Evaluating an Expression: