

- Make a table of values for the function $f(x) = \left(\frac{1}{2}\right)^x = 2^{-x}$. Then sketch the graph.

BEFORE WE EVEN START, NOTICE THAT

THE GRAPH OF $y = 2^{-x}$ IS A REFLECTION OF
THE GRAPH OF $y = 2^x$ ABOUT THE y -AXIS.

THIS FOLLOWS FROM OUR TRANSFORMATIONS OF GRAPHS.

x	$f(x) = 2^{-x}$
0	1
1	$\frac{1}{2}$
2	$\frac{1}{4}$
3	$\frac{1}{8}$
-1	2
-2	4
-3	8

