

Function:

$$f(x) = 2^x$$

Table of Values

X	Y
-3	$\frac{1}{8}$
-2	$\frac{1}{4}$
$-\frac{1}{2}$	$\frac{1}{\sqrt{2}}$
0	1
$\frac{1}{2}$	$\sqrt{2}$
1	2
2	4
3	8

Domain	Interval	Absolute Value	Name
	$(-\infty, \infty)$	$ x < \infty$	All \mathbb{R} .
	$(0, \infty)$	Not applicable.	All $\mathbb{R} > 0$.

Roots(List)	Y-Intercept	Symmetries?									
None	(1)	<table border="1"> <tr> <td>Y-axis</td> <td>Yes</td> <td>No</td> </tr> <tr> <td>Y=x</td> <td>Yes</td> <td>No</td> </tr> <tr> <td>Origin</td> <td>Yes</td> <td>No</td> </tr> </table>	Y-axis	Yes	No	Y=x	Yes	No	Origin	Yes	No
Y-axis	Yes	No									
Y=x	Yes	No									
Origin	Yes	No									

Even?	$f(x) = f(-x)$	Yes	No
Odd?	$f(x) = -f(-x)$	Yes	No

Periodic?	Yes: Period=	No
One-to-One?		Yes
Onto? All $\mathbb{R} > 0$.		Yes

Discontinuities?	
Removable	None
Undefined	$\pm\infty$

Asymptotes?	
Horizontal $\lim_{x \rightarrow \infty} f(x)$	None
Horizontal $\lim_{x \rightarrow -\infty} f(x)$	$y=0$
Vertical $\lim_{x \rightarrow a} f(x)$	None
Oblique (equation)	None

