

Graphing exponential functions

Work in pairs to solve the following problems.

- 1) Graph the function $f(x)=2^x$: start with a few points having integer x-coordinate (0, 1, 2, -1, -2 and so on).
- 2) Check your work watching <https://www.youtube.com/watch?v=tAaDItpC8OI> to 1:30.
- 3) Graph the function $g(x)=\left(\frac{1}{2}\right)^x$. What relation can you find between the graphs of f and g ?
- 4) Complete the table in which we compare and contrast f and g . All functions with base >1 have the characteristics of f , while all functions with base between 0 and 1 have the characteristics of g .

	$f(x)=2^x$	$g(x)=\left(\frac{1}{2}\right)^x$
The base is	>1	
The function is		decreasing
that is, the slope is		
The y-intercept is		
The domain is		
The range is		
The horizontal asymptote is		
f and g are symmetrical about the y-axis.		