- exponential function

$f(x) = b^x$

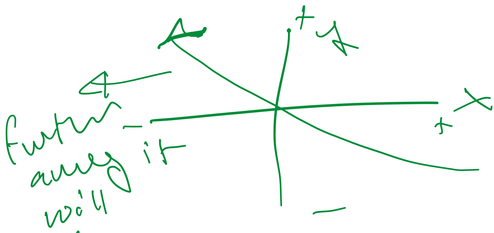
- for irrational numbers, you are just going to have to compute it to some decimal place

- the graph b^x is

closer it will be to the y-axis

(whose being positive)

for b^x is (eg $(1/2)^x$)



further away it will be

(if it is negative, simply reflect these principles)

- Laws of exponents:

if $a \neq b$ are positive #(s) & x & y are real #(s), then

① $b^{x+y} = b^x b^y$ ② $b^{x-y} = \frac{b^x}{b^y}$

③ $(b^x)^y = b^{xy}$ ④ $(ab)^x = a^x b^x$

- Euler's #:

$e \cong 2.71828$

$f(x) = e^x$ is called the natural exponential function