

## § 1.4 - Exponential Functions, Part 2

In this video we will:

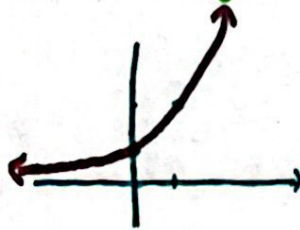
- Sketch the graphs of  $y = a^x$
- Introduce the number  $e$  and the function  $y = e^x$
- Sketch the graph of  $y = e^x$

A guide to sketching  $y = a^x$ ,  $a > 0$ .

$$y = 2^x$$

$$y(0) = 2^0 = 1$$

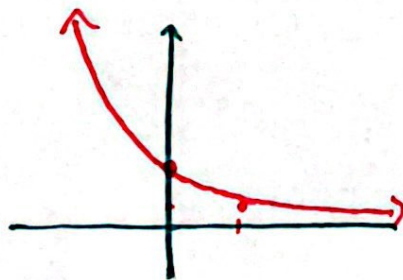
$$y(1) = 2^1 = 2$$

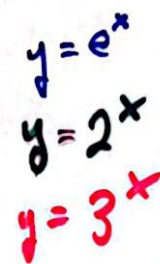


$$y = \left(\frac{1}{3}\right)^x$$

$$y(0) = 1$$

$$y(1) = \frac{1}{3}$$





- Applications of exponential functions
- Transformations of exponential functions
- Exponential Functions inside other functions:  $y = \frac{1}{1+e^x}$