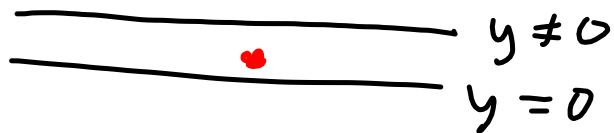


$$e^{-x} = \frac{1}{e^x} \xrightarrow{x \rightarrow \infty} \frac{1}{\infty} = 0$$

$\lim_{x \rightarrow 5} f(x) = 2$ means

I can make $f(x)$ closer to 2 than any fixed distance by making x close to 5.

Further, $f(x)$ will stay closer to 2 as I go closer to 5



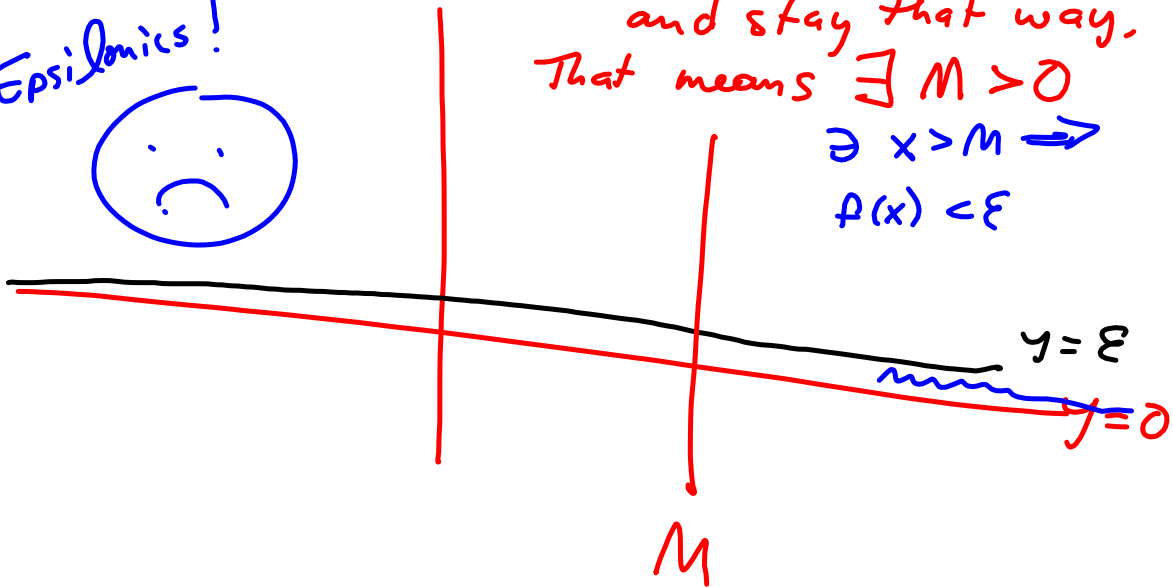
$\lim_{x \rightarrow \infty} f(x) = 0$
Epsilonics!



Give me $\epsilon > 0$

Eventually $f(x) < \epsilon$
and stay that way.
That means $\exists M > 0$

$$\exists x > M \Rightarrow f(x) < \epsilon$$



$$f(x) = e^5 \text{ Horizontal Line.}$$

$$y = e^5 \approx 148.41$$

$$2^5 = 32$$

$$3^5 = 243$$

$$2.78^5 \approx e^5$$

$$\frac{d}{dx} [e^5] = 0$$

