

LÍMITES IMPORTANTES

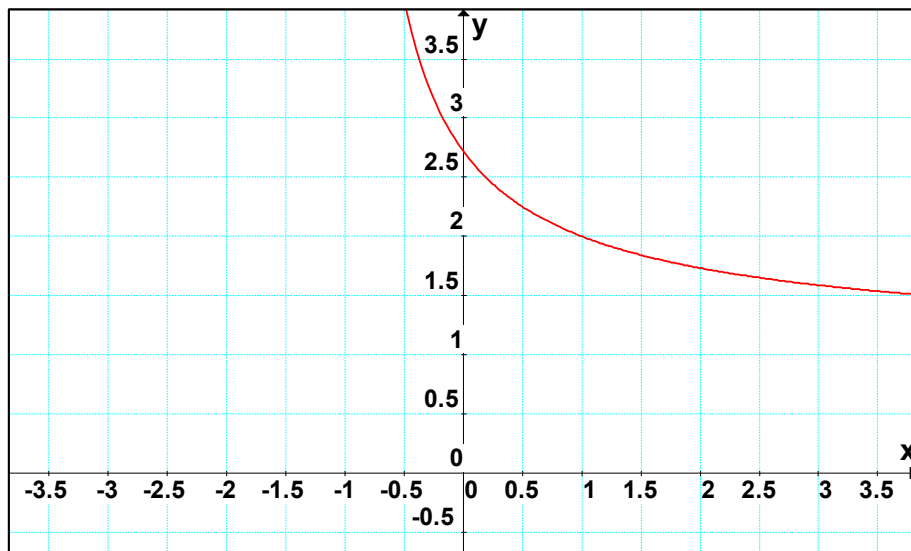
$$1. \lim_{x \rightarrow +\infty} \left[1 + \frac{1}{x} \right]^x = e$$

$$y = \left[1 + \frac{1}{x} \right]^x$$



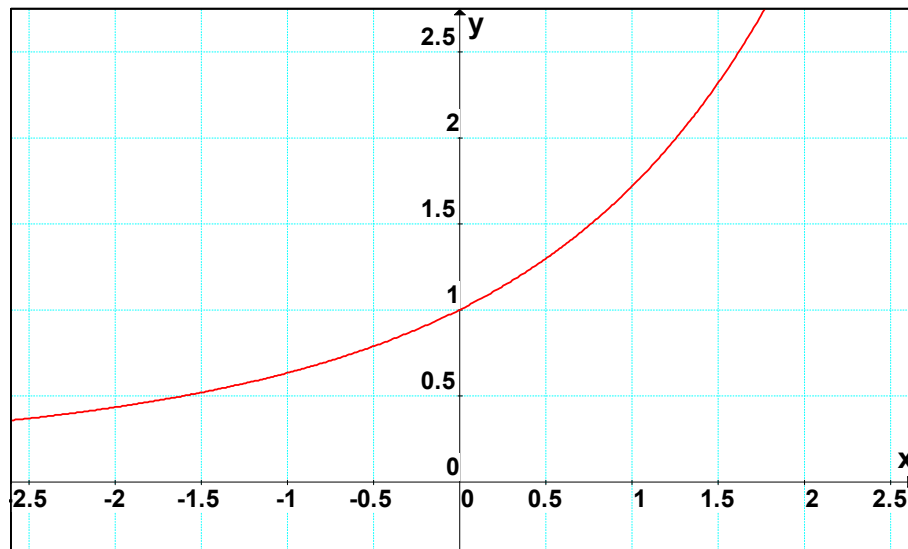
$$2. \lim_{x \rightarrow 0^+} [1 + x]^{1/x} = e$$

$$y = [1 + x]^{1/x}$$



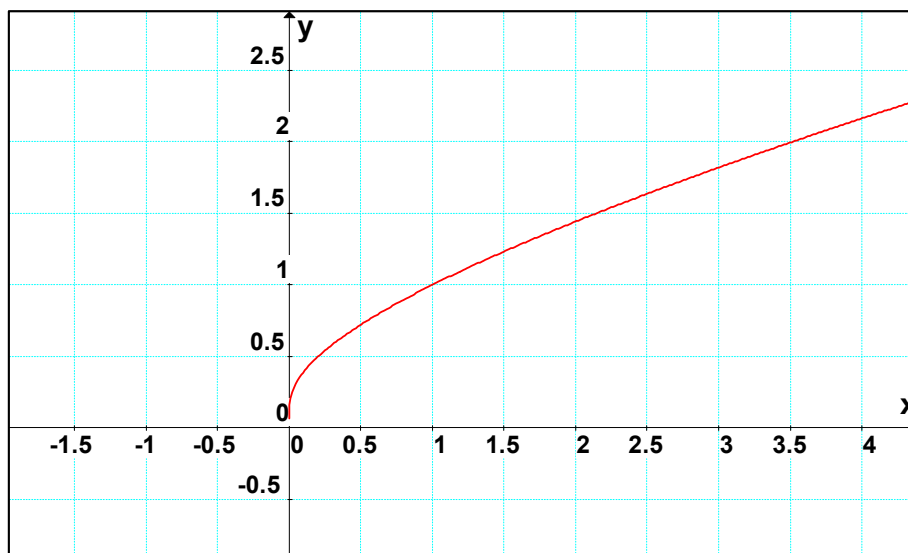
$$3. \lim_{x \rightarrow 0} \frac{e^x - 1}{x} = 1$$

$$y = \frac{e^x - 1}{x}$$



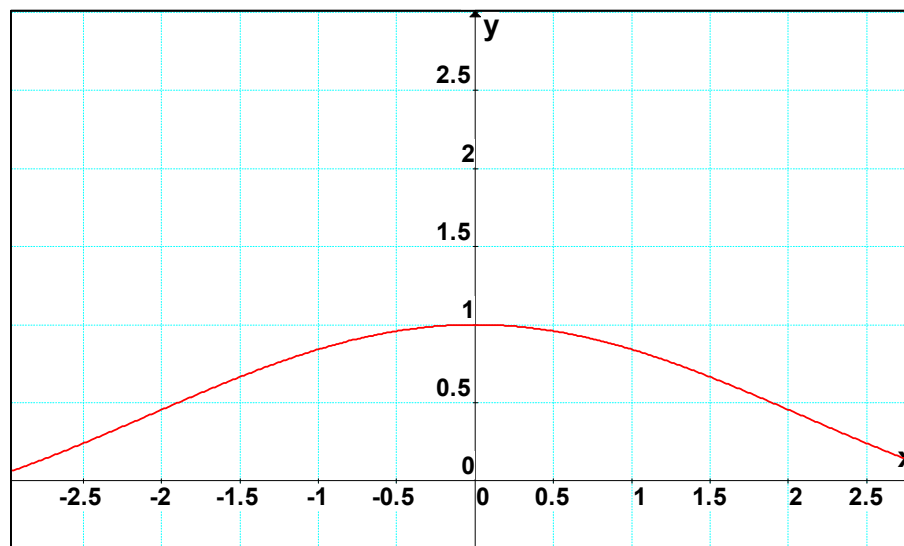
$$4. \lim_{x \rightarrow 1} \frac{x - 1}{\ln(x)} = 1$$

$$y = \frac{x - 1}{\ln(x)}$$



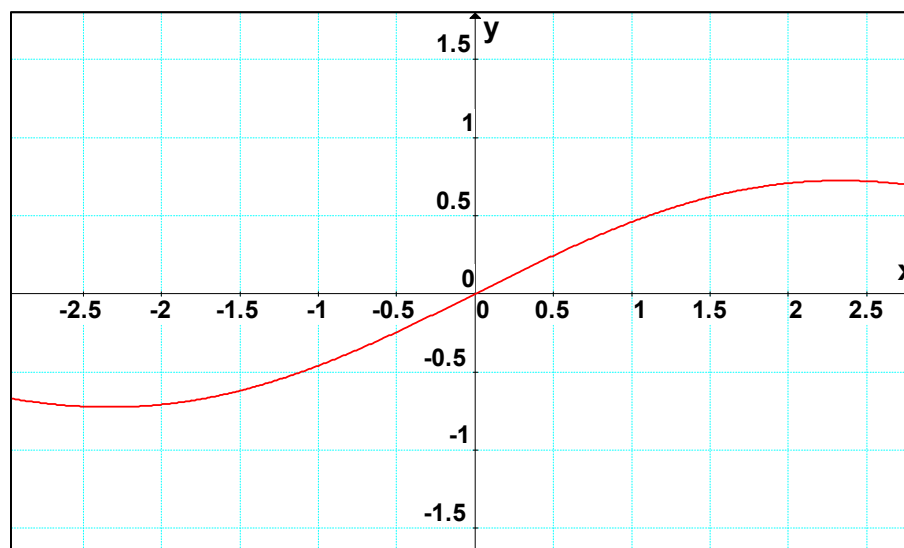
$$5. \lim_{x \rightarrow 0} \frac{\text{sen}(x)}{x} = 1$$

$$y = \frac{\text{sen}(x)}{x}$$



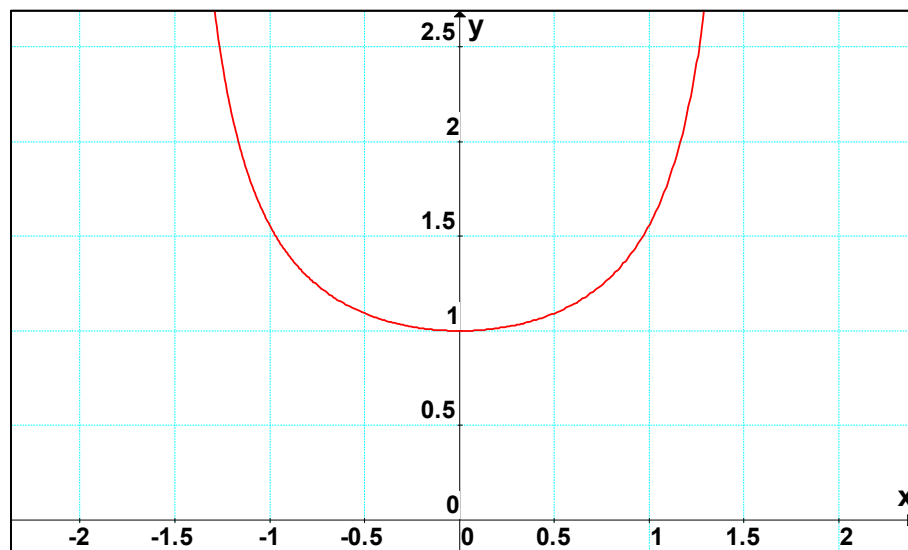
$$6. \lim_{x \rightarrow 0} \frac{1 - \cos(x)}{x} = 0$$

$$y = \frac{1 - \cos(x)}{x}$$



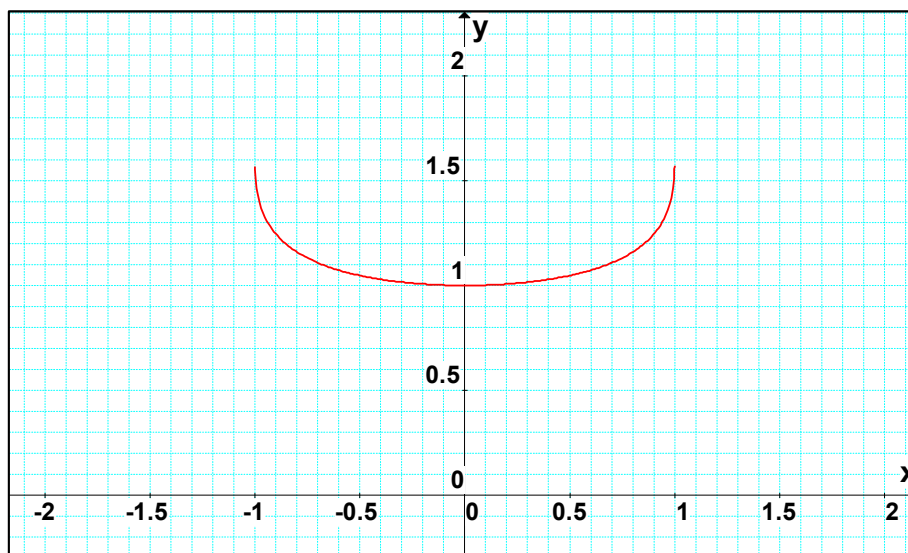
$$7. \lim_{x \rightarrow 0} \frac{\operatorname{tg}(x)}{x} = 1$$

$$y = \frac{\operatorname{tg}(x)}{x}$$



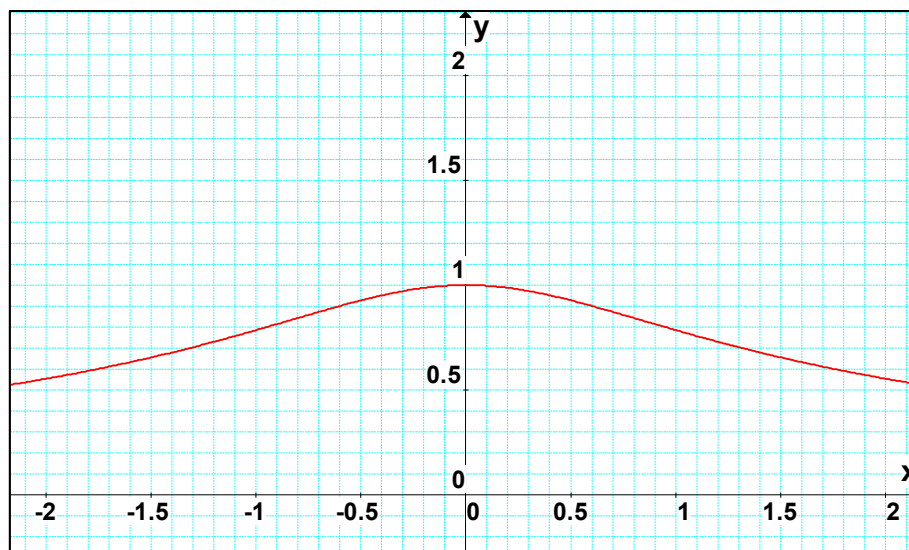
$$8. \lim_{x \rightarrow 0} \frac{\operatorname{sen}^{-1}(x)}{x} = 1$$

$$y = \frac{\operatorname{sen}^{-1}(x)}{x}$$



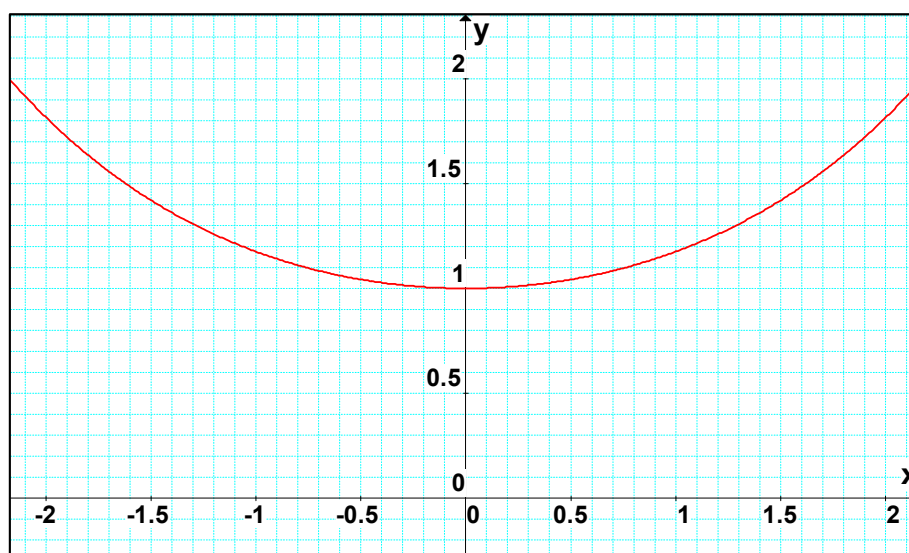
$$9. \lim_{x \rightarrow 0} \frac{\operatorname{tg}^{-1}(x)}{x} = 1$$

$$y = \frac{\operatorname{tg}^{-1}(x)}{x}$$



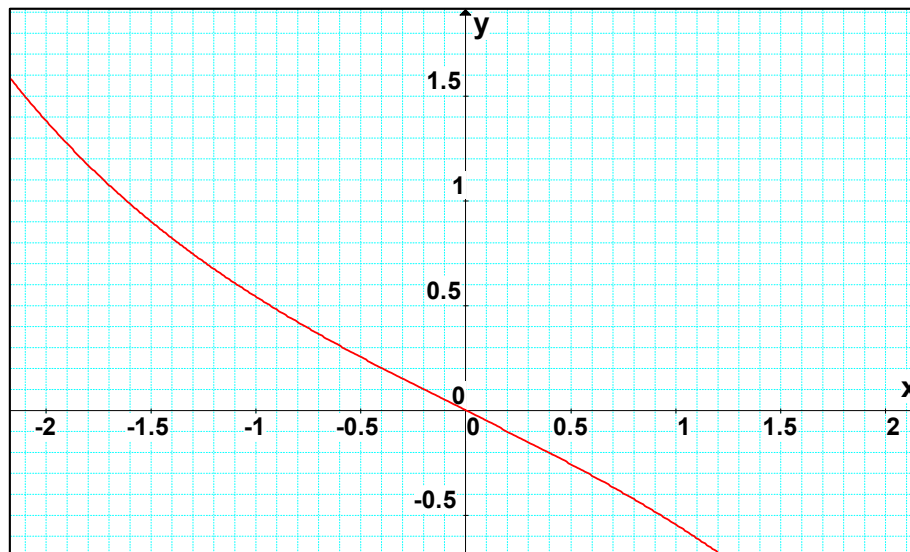
$$10. \lim_{x \rightarrow 0} \frac{\operatorname{senh}(x)}{x} = 1$$

$$y = \frac{\operatorname{senh}(x)}{x}$$



$$11. \lim_{x \rightarrow 0} \frac{1 - \cosh(x)}{x} = 0$$

$$y = \frac{1 - \cosh(x)}{x}$$



$$12. \lim_{x \rightarrow 0} \frac{\operatorname{tgh}(x)}{x} = 1$$

$$y = \frac{\operatorname{tgh}(x)}{x}$$

