

King Abdulaziz University

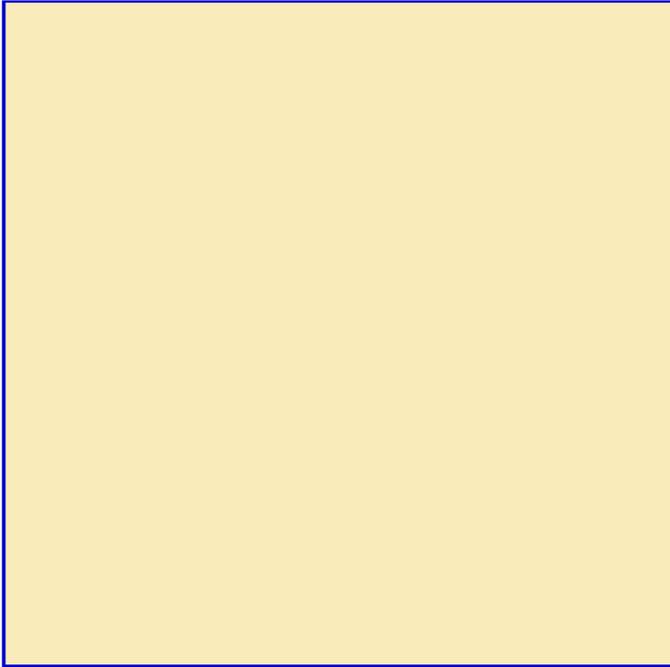
## 2.2 The Limit of A Function

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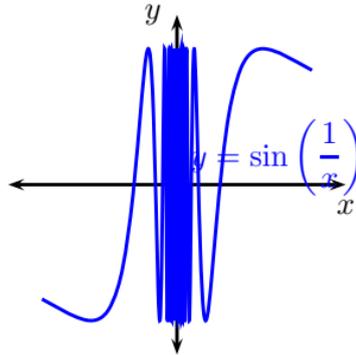


**تعليمات:** لترى محتويات الصفحة ولتنقل الى الصفحة التالية انقر على ►. قد تحتاج لنقر اكثر من مرة



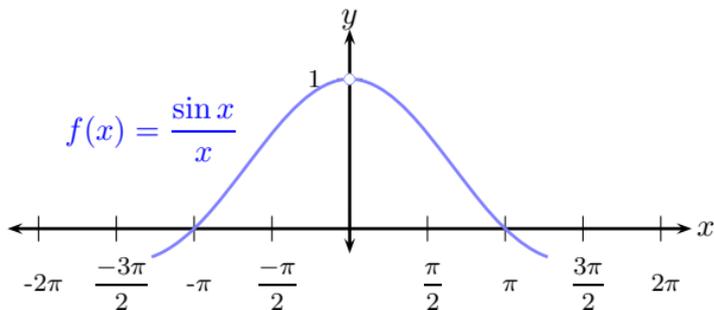






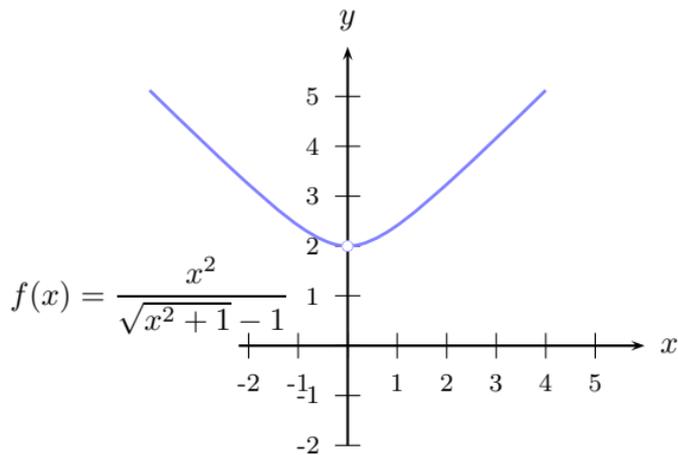
**EXAMPLE 2.** Discuss the existence of the limit  $\lim_{x \rightarrow 0} \frac{\sin x}{x}$ .

*Solution:*



**EXAMPLE 3.** Discuss the existence of the limit  $\lim_{x \rightarrow 0} \frac{x^2}{\sqrt{x^2 + 1} - 1}$ .

*Solution:*



## 2.2. One-side Limit















## Vertical Asymptote

