

Agenda/Objectives/Notes Section 1.5

Starter Problems

1. State conditions for which a limit fails to exist.
2. State the six methods you have learned to determine a limit.

3. Find the limit: $\lim_{x \rightarrow 0} \frac{1 - \cos^2 x}{x(1 + \cos x)}$

Today's Agenda

1. Starter problems
2. Review assignment due
3. Today's objectives
4. Today's assignment: Read section 1.5, 88/1, 7, 11, 15, 23, 27, 29, 33, 3*, 43, 51, 53-56, 61, 65
5. Quiz 1.1 – 1.3

Today's Objectives: You will be able to

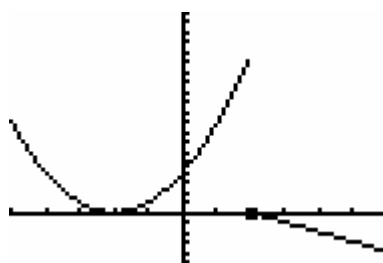
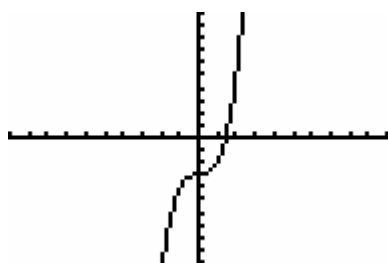
1. Determine infinite limits from the left and from the right.
2. Find and sketch the vertical asymptotes of the graph of a function

Some Review

Find the following limits.

1. $\lim_{x \rightarrow -1} (x^3 - 3)$

2. $\lim_{x \rightarrow 2} \begin{cases} (x-2)^2, & x \leq 2 \\ 2-x, & x > 2 \end{cases}$



3. $\lim_{x \rightarrow 4} \frac{x-3}{x+4}$

4. $\lim_{x \rightarrow \pi/2} \frac{\sin x}{\cos x}$