

Topic #4: Other Limits (Math 31)

GOALS:

- a. Left/right limits
- b. Infinite limits

LEFT/RIGHT LIMITS

1. Do examples showing table: Lim, left lim, right lim
2. State thm about 2 sided limits: $\text{Lim} = L$ iff Left = L and Right = L.
3. Draw graph with given properties.
4. Find equation of graph with given properties.

INFINITE LIMITS

5. Example of infinite limit: $f(x) = 1/x^2$
6. More examples in pictures (skip most formulas)
7. Example left/right with infinite limits: $f(x) = 1/x$
8. Asymptote def: If any limit at a is + or - infinity, then $x = a$ is an asymptote.

LIMIT LAWS

9. Arithmetic. But watch out for division.