

# Lecture 1

Monday, September 26, 2022 7:41 AM

Class: Math 251 (Calculus I)

Location: { Badgley Hall 146  
Inlow Hall 013

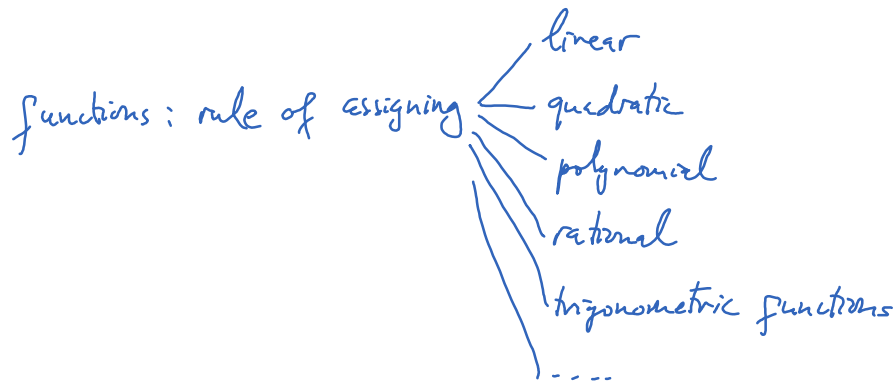
Talk about syllabus:

- HW : due Tuesday in class.
- Maple labs
- Class participation: it is important to attend class
- Midterm
- Final

Overview of the course:

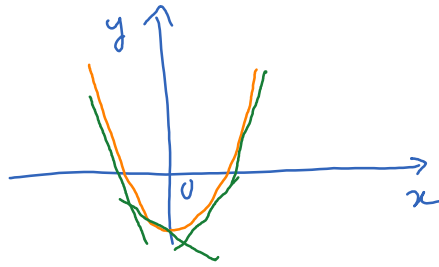
Math 112 : Pre-Calculus — not quite Calculus.

It has much in common with College Algebra.



Calculus vs Algebra  
↓                      ↓  
dynamic                static

$$f(x) = x^2 - 1$$



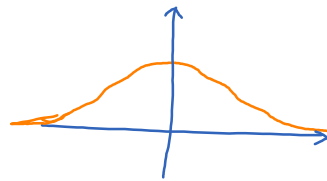
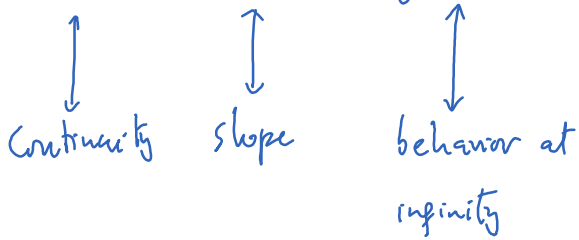
As  $x$  increases, but still less than 0,  
 $f(x)$  decreases.

As  $x$  tends to -1,  $f(x)$  tends to 0.

The tangent line of the graph has negative slope for  $x < 0$ , but the slope increases continuously as  $x$  increases.

Some vocabulary we will use a lot: increase/decrease, tend, approach,

limit, derivative, asymptotic.



What can Calc I do? Help us quantify change.