

Worksheet 1

MATH 1A Fall 2015

for 8 September 2015

Exercise 1. Write down the truth table for the statement “If P then not Q ”, or equivalently “ P implies not Q ”.

		P	
		T	F
Q	T		
	F		

It’s probably more important to understand how limits work than to memorize the definition, but hopefully if you understand limits well enough then you can come up with the definition.

Exercise 2. State the definition of a limit: Let $f : \mathbb{R} \rightarrow \mathbb{R}$ be a function, and let $a, L \in \mathbb{R}$. Then

$$\lim_{x \rightarrow a} f(x) = L$$

if

Here’s a limit problem for a quadratic polynomial. See if you can remember the trick with δ we used to solve it.

Exercise 3. Prove that

$$\lim_{x \rightarrow -1} x^2 - 2x + 2 = 5.$$