

# Math 4301 Project Template

## Your title here

by  
Your Name Here

A project submitted to the Department of  
Mathematical Sciences in conformity with the requirements  
for Math 4301 (Honour's Seminar)

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Thunder Bay, Ontario, Canada  
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## **Abstract**

Put a short summary (no more than 300 words) of what your project is about.

This is a template to be used by students in Math 4301. I have tried to keep it as simple as possible. Feel free to make as many changes as you wish.

## **Acknowledgements**

List all the people you would like to thank. You should at least thank your supervisor.

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## CHAPTER 1

### Chapter 1 Title – Usually Introduction

Normally, put a summary of your project in this chapter. Should include some background material and motivating problem.

Blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah. Blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah. Blah blah blah blah. Blah blah blah blah blah blah blah blah blah blah bla h blah blah blah blah blah blah blah blah. Blah blah blah blah blah blah blah blah blah blah bla h blah blah blah blah blah blah blah blah.

Blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah. Blah blah. Blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah. Blah blah blah blah.

**Theorem 1.1.** *Blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah.*

PROOF. This is clear.

□

You can also break your chapter up into sections.

#### 1. New Section

I am in a section. I think this section needs some sub-sections:

**1.1. Stuff A.** This is what I think about Stuff A.

Blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah. Blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah. Blah blah blah blah.

**1.2. Stuff B.** This is what I think about Stuff B.

Blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah. Blah blah. Blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah. Blah blah blah blah.

#### 2. Newer Section

I have decided to now talk about something else. Let's prove a lemma.

**Lemma 1.2.** *Lemma lemma lemma.*

PROOF. This is obvious.  $\square$

We can then prove the following collary to Lemma 1.2. (See the LaTeX code to see how I referenced this Lemma.

**Corollary 1.3.** *Corollary Corollary Corollary*

PROOF. We specialize Lemma 1.2 to the case that  $t = 4$ .  $\square$

Besides Theorems, Lemmas and Corollaries, we can make:

**Conjecture 1.4.** *This is what I think is truee.*

**Question 1.5.** *What can we say about this?*

**Problem 1.6.** *Compute the number of times Blah appears in this document.*

**Proposition 1.7.** *I have yet to hear a good difference between proposition and theorem, so I always use theorem. You may want to use a proposition.*

We can also use the following:

**Definition 1.8.** We define *blah*, denoted  $\mathcal{B}$ , to be the the number of mini-blahs in a  $\mathcal{C}$ .

**Example 1.9.** Here is an example of an example!

**Remark 1.10.** Hark! Here is is a remark!

### 3. Using the bibliography

In the bibliography,, you can put your references. Once you do this, you can then refer to them like this (see the code).

In her paper [1], B. Blah looked at the importance blahness when studying the properties of being blah.

## CHAPTER 2

### Chapter 2 Title

Blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah. Blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah. Blah blah blah blah. Blah blah blah blah blah blah blah blah blah bla h blah blah blah blah blah blah blah. Blah blah blah blah blah blah blah blah bla h blah blah blah blah blah blah blah. Blah blah blah.

Blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah. Blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah. Blah blah blah.

**Theorem 2.1.** *Blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah. Blah blah blah.*

## CHAPTER 3

### Chapter 3 Title

Blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah. Blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah. Blah blah blah blah. Blah blah blah blah blah blah blah blah blah bla h blah blah blah blah blah blah blah. Blah blah blah blah blah blah blah blah bla h blah blah blah blah blah blah blah. Blah blah blah.

Blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah. Blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah. Blah blah blah.

**Theorem 3.1.** *Blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah blah. Blah blah blah.*



## Bibliography

- [1] B. Blah, The Blahness of Blah. *Journal of Blah*, **123** (1998) 2343-3435. 2