

My Bachelor Project Title

My name ¹

¹Department of Mathematics

Introduction

Here is where you can set up the question or problem you studied in your project and set that problem into context. This is also the place to provide any history or motivation. You may or may not want to use “Introduction” as the name here. Can you think of something more helpful or catchy?

Background

Here is where you could provide the main definitions and some of the base results you use in your project (not yet the highlights) think of this as a streamlined "preliminaries" section which you might have in your final written project.

You can also use latex environments like “Theorem” and “Definition” to highlight your main points. These environments follow the color scheme of “block” as defined in the .cls file. Here is an example.

Definition

A finite projective plane consists of a finite set P and a collection of subsets of P denoted $\mathcal{L}$ satisfying three axioms.

Example I - The Fano plane

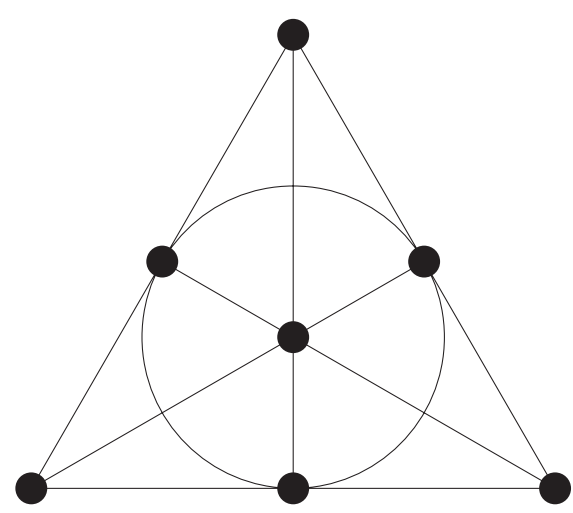


Figure 1: A depiction of a finite project plane with 7 points which are given by the dots. The set $\mathcal{L}$ consists of the 7 triplets of points which are connected by “lines”.

Results and justification

This could be a section where you state your main results. If you decide to have any proofs on your poster they could also go here. Consider including a proof by example if there is an illustrative and not too technical one you could come up with.

Theorem

A finite projective plane over $\mathbb{F}_q$ contains $q^2 + q + 1$ points and $q^2 + q + 1$ lines.

Example II

The Fano plane from Example I is a finite projective plane over $\mathcal{F}_2$. It contains $7 = 2^2 + 2 + 1$ points and also 7 lines.

A finite projective plane has **order** q if it has $q^2 + q + 1$ points.

Discussion and future research

Not all finite projective planes arise from geometries over finite fields. However, all known examples have order $q|p^n$. The following is known as the **prime power conjecture**.

Conjecture

Finite projective planes only exist for $q = p^n$ where p is a prime.

References

Include a few of the main references you used using bibtex.

Acknowledgements

This project was prepared as part of MAT2000 - Project work in mathematics. I would like to thank my project supervisor **NAME**.

