Deliverable 1: Research Report

Kyle Dick F20PA Project supervised by Kathrin Stark

October 12, 2022

Abstract

Write a short abstract of your essay here.

Contents

1	Introduction 1.1 Background	4
2	Graphics	4
3	Lists and Tables	4
4	Conclusions	4

1 Introduction

1.1 Background

Theorem 1.1. An important mathematical theorem

See [2, Chapter 3] or [1] for more details.

Proof. The 'proof' environment provides a standard beginning and end for your proofs, and takes care of the spacing around them. \Box

2 Graphics

Graphics files in PDF or JPEG format can be pasted in using the code below (remove the % signs and edit according to your needs).

3 Lists and Tables

It is often useful to display information in the form of a list or a table. Here will display some examples of:

- A function f;
- Its derivative f'; and
- Its indefinite integral $\int f$.

f	f'	$\int f$
x^3	$3x^2$	$x^4/4$
$\cos(x)$	$-\sin(x)$	$\sin(x)$
e^x	e^x	e^x

4 Conclusions

References

- [1] J. D. Bovey, M. M. Dodson, The Hausdorff dimension of systems of linear forms *Acta Arithmetica* **45** (1986), 337–358.
- [2] J. W. S. Cassels, An Introduction to Diophantine Approximation, Cambridge University Press, Cambridge, 1965.
- [3] The GAP Group, GAP Groups, Algorithms, and Programming, Version 4.5.6; 2012. (http://www.gap-system.org)

 $[4] \ \ J. \quad \ Howie, \quad \ Generalised \quad triangle \quad groups \quad \ of \quad type \quad \ (3,5,2), \\ \ http://arxiv.org/abs/1102.2073 \ (2011).$