

## Part III — Core

Based on lectures by Brian  
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These notes are not endorsed by the lecturers, and I have modified them (often significantly) after lectures. They are nowhere near accurate representations of what was actually lectured, and in particular, all errors are almost surely mine.

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## 0 introduction

Skip C1

C2 section < 8

## 1 The exponential and log function

## 2 Graphs of trigonometric functions

## 3 Numerical methods

## 4 Transforming graphs of functions

## 5 Trigonometry



## 6 Further trigonometric identities and their applications

## 7 Partial fractions

## 8 Coordinate geometry in the x-y plane

## 9 The Further binomial expansion

## 10 Vectors - dot product and vector equations of line

## 11 Differentiation

## 12 Integration

## 13 Formula List for non-exist topics

**Definition** (Inverse function).

**Definition** (cosine law).