

**If you have not already done so, save this file to your My Documents folder. Re-save it frequently.**

Before you begin this exam, enter in the table below your name (as registered with Queen Mary) and **student number** (the one that consists of 9 digits) in the right hand column. **Your student number is essential!**

<b>First forename (or given name)</b>	
<b>Surname (or family name)</b>	
<b>Student number (essential)</b>	
<b>Marks – for examiner's use only</b>	`+`(_Q    (1..8))

Answer each question in the appropriate subsection headed *Answers*. You must use Maple to perform all calculations. Do not delete any relevant input or output; you will score marks only for what is visible in the document you submit. There may be more than one correct answer to each question; any working solution will be accepted provided it satisfies the requirements of the question.

You may use any form of input and output but **do not use the right mouse button or use the mouse to copy Maple output** because this may cause Maple to stop responding. To refer to unassigned Maple output in subsequent input you can use its label via the *Insert* menu or *Ctrl+L*. You are recommended to restart the Maple server before answering each main question by executing the *restart* commands provided in the *Answers* subsections. **Insert additional execution groups as necessary. Note that you are not required to use two-dimensional input and you can use functional equivalents to the templates in the palettes if you wish.**

**You are not permitted to begin answering this exam until instructed to do so by an invigilator.**

**Before you leave the exam room you must upload this .mw file to QMplus using the upload link in QMplus immediately below the download link and also email it to [f.j.wright@qmul.ac.uk](mailto:f.j.wright@qmul.ac.uk) from your QMUL email account as backup.**

## Question 1

### Answers

Before starting this question, execute this command:

```
[> restart  
[>
```

a)

```
[>  
[>
```

b)

```
[>  
[>
```

c)

```
[>  
[>
```

d)

```
[>  
[>
```

Now save this document.

### Marks – for examiner's use only

Marks	Comments
_Q1 :=	

▶ Question 2

▶ Question 3

▶ Question 4

▶ Question 5

▶ Question 6

▶ Question 7

▶ Question 8