TMA 01   **Cut-off date** 12 November 2024

Solution to Question 1 (essay question) – 25 marks

Remark: For making short comments for tutors.

(a)   hello   4

(b)   goodbye running a long time until it goes over to a second line perhaps

(c)   (i)   Sub sub   2

       (ii)   Sub sub   2

                                                  4 Subtotal for part (c)

                       | *Unit A, pages 1–2* | **5 Total for Question 1**

Remarks

You can place longer remarks inside the longremark environment.

References

You can place references inside the references environment.

Solution to Question 2

(a)   First part of the solution, inside the solution environment.   4

(b)   Some mathematics: $\int_0^\infty x$ and

$$a^2 = b^2 = c^2$$
                                                           2

      Remark: Award no marks for this part of the question.

(c)   Marks with marginal comments.   40   Method. Ignore all attempts at this question.

(d)   Starred enumerate environment gives you inline enumerate:

      (i) first part   (ii) second part   (iii) third part   3

(e)   The final part.   3

                                                    1 Subtotal for part (e)

                     | *Unit B, Theorem 1.1* | **5 Total for Question 2**

Solution to Question 3 – 25 marks

(a)   Marks can also be called using   4

(b)   Formatting in marks: these don't get automatically summed.   **3**   1A 2M

(c)   (i)   Sub sub   2

       (ii)   Sub sub question that runs a long time until it goes over to a second line   2

Emulate the OUTeX intertext command using the (built-in) enumitem command.

(d)   Numbering continues

		3	**Total**

Solution to Question 4 – 10 marks

(a)	Subtotals can be calculated automatically using \subtotal* or \subtotal*[comment]	2	
(b)	Totals can be calculated automatically using \total* or \total*[comment]	3	
		5	**Subtotal**
(c)	Marks that you don't want added to the subtotal/total counter can be inserted using \mk*	2	
		0	**Subtotal**
		5	**Total**

Solution to Question 5 – 3 marks

(a) The lines after a subtotal command can be customized using the \setSubtotalHline[<options>] command, the <options> are moveleft, width, height, color, and draw line. These options can be used in any combination (and should probably be set once in the preamble); for example,

- default behaviour

	0	**Subtotal**

- \setSubtotalHline[moveleft=0pt]

	0	**Subtotal**

- \setSubtotalHline[moveleft=-2cm,width=.5\textwidth]

	0	**Subtotal**

- \setSubtotalHline[color=green]

	2	
	3	**Subtotal**

- \setSubtotalHline[moveleft=0pt,height=5pt,color=orange]

	0	**Subtotal**

- turn off: \setSubtotalHline[draw line=false]

	1	
	1	**Subtotal**

(b) The lines after a total command can be customised using the \setTotalHline[<options>] command, and have exactly the same options as its \setSubtotalHline counterpart.

For example,

- default behaviour

	1	**Total**

- \setTotalHline[moveleft=10pt]

	3	**Total**

- \setTotalHline[moveleft=2cm,width=.75\textwidth]

	3	**Total**

- \setTotalHline[color=purple]

	3	**Total**

- \setTotalHline[moveleft=0pt,height=.5pt,color=yellow]

3 Total

- turn off: \setTotalHline[draw line=false]

3 Total

(c) Horizontal rules can be drawn manually without using the \total (and friends) command(s) using the \ourule[<options>] command, where the <options> are exactly the same options as those for \setSubtotalHline. For example:

- \ourule

- \ourule[color=orange]

- \ourule[color=black!50!red,height=3pt,width=.5\textwidth]

- You can specify the style of the \ourule command globally using, for example,
  \setOUrule[color=red,moveleft=-2cm,width=.75\textwidth]
  Now, when using simply \ourule, the output is:

  And then you can overwrite certain aspects as you see fit, for example
  \ourule[color=blue]

Solution to Question 6 – 4 marks

(a) The \tnonly command *only* produces output in the tutor version of the tutor notes, and is ignored when the specsolns option is used. For examplestudents will not see this!.

(b) The tutor environment is only visible in tutor notes, and is ignored when the specsolns option is used. For example:

For tutors only:

This environment will only be seen in the tutor notes.

It will not be seen in the student version.

(c) The `\ssonly` command *only* produces output when `specsolns` is active; for example

(d) The `student` environment is only visible in student solutions, when the `specsolns` option is used. For example

(e) The `\tnorss` takes two parameters, the first will only be seen in the tutor version (when `specsolns` is not active), the second will only be seen by students in the student version (when `specsolns` is active). For example: for tutors!

CMA 41

Solution to Question 1 (inline multi-choice) – 25 marks

Remark: Inline options work in the Tutornote class file in exactly the same way as in the assignment booklet.

Options

A	yes	**B**	no	**C**	maybe	**D**	well...	**E**	never!
F	yes	**G**	yes	**H**	yes				

Solution to Question 2 (inline multi-choice) – 25 marks

Choose an inline option from four columns.

Options

A	yes	**B**	no	**C**	maybe	**D**	well...
E	never!	**F**	yes	**G**	yes	**H**	yes

Solution to Question 3

Choose an inline option at 1.5 spacing.

Options

A	yes	**B**	no	**C**	maybe
D	well...	**E**	never!	**F**	yes
G	yes	**H**	yes		

Solution to Question 4 (stupid question) – 25 marks

Choose an option.

Options

A There are no options

B There is one option

C This option is the wrong choice

Solution to Question 1 (changing subquestion labels) – 8 marks

(i)   enumitem lets you change the labelling of subquestions   4

(ii)   goodbye running a long time until it goes over to a second line perhaps

Solution to Question 2 (changing subquestion labels 2) – 8 marks

(A)   enumitem lets you change the labelling of subquestions   4

(B)   goodbye running a long time until it goes over to a second line perhaps

Solution to Question 3 (Starred version showing no marks)

This question has no marks associated with it on its first line.   4

Solution to Question 4

Another starred question, this time with no optional argument.