2022 VCE Specialist Mathematics 2 (NHT) external assessment report

Specific information

This report provides sample answers or an indication of what answers may have included. Unless otherwise stated, these are not intended to be exemplary or complete responses.

The statistics in this report may be subject to rounding resulting in a total more or less than 100 per cent.

Section A – Multiple-choice questions

|  |  |
| --- | --- |
| **Question** | **Answer** |
| 1 | E |
| 2 | D |
| 3 | C |
| 4 | D |
| 5 | B |
| 6 | E |
| 7 | A |
| 8 | B |
| 9 | C |
| 10 | E |
| 11 | A |
| 12 | C |
| 13 | C |
| 14 | D |
| 15 | B |
| 16 | B |
| 17 | A |
| 18 | D |
| 19 | E |
| 20 | E |

Section B

Question 1ai.



Question 1aii.

, 

Question 1bi.



Question 1bii.

 local max,  (stationary) point of inflection,  local min

Question 1c.

Question 1di.



Question 1dii.



Question 2a.

Question 2b.



Question 2c.

 or other form, such as 

Question 2d.

,  or polar form , 

Question 2e.



or any equivalent form

Question 2f.

 is at the same perpendicular distance from the ray as (0, 1).





Question 3a.



Question 3b.



Convincing working leading to the result was required.

Question 3ci.



Question 3cii.



Initial condition: 

Question 3d.

Maximum rate = 30.8 when *t* = 0.4.

Question 4a.



Question 4bi.



Question 4bii.



Question 4c.



Convincing working leading to the result was required.

Question 4d.



Question 5a.



Question 5b.



Question 5c.



Question 5d.

 do not reject 

Question 5e.



Question 5f.



Question 5g.



Question 6a.



Question 6b.



Question 6c.





Alternatively, minimise .

Question 6d.



Question 6e.

