Foundation Maths – MA103

2024 VCE Assessment Guide

VCAA Marking Policies and Procedures

Consistency of Marking

The Assessment Guide indicates the basis for awarding marks for each item. This may involve either counting correct answers/features of a response or marking holistically, whereby making a judgement about the overall quality/qualities of a response.

Assessment Guides will demonstrate how marks are to be awarded for a response, not where or how marks are to be deducted. The Assessment Guide will address specific examples and relevant application where appropriate. The following provides a checklist that all assessors should follow for consistent approaches to marking VCE external examinations.

Assessors should contact the Chief Assessor in cases where they believe that by following any of the directions below, a student will not be marked fairly.

Assessors must use the final version of the Assessment Guide as confirmed at the end of the Assessor Training Meeting.

|  |  |
| --- | --- |
| Concern | Advice |
| **Responses ‘off task’ or contradictory** | A response that does not address the subject of the question cannot be awarded any marks.  If contradictory responses are given (i.e.: the response conflicts with earlier comments or working out) full marks cannot be awarded. |
| **Responses not addressed in the Assessment Guide** | Assessors should refer the matter to the Chief Assessor for determination. |
| **Spelling** | Unless otherwise instructed in the Assessment Guide (i.e.: as part of a criteria), incorrect spelling should not affect the scoring of a student’s response. |
| **Specified Number of Examples/Reasons** | Where a student provides more than the required number, the assessor should only assess the required number of responses, and these should be assessed in the order in which they appear. |
| **Working Out** | Where a question explicitly requires the student to show working out, and this is specified in the examination instructions or in the question, full marks should be awarded if:   * The response is correct and the working out is correct * Two sets of working out are shown, both attempts are correct, and the answer is correct   Where a question explicitly requires the student to show working out, partial marks should be awarded for correct completion of key steps required to produce the correct answer. |
| **Consequential Errors** | If a question requires a series of argued/sequential steps to arrive at the correct response, the Assessment Guide will allocate marks for the key steps required to produce the correct response.  In these cases, the effect of a consequential error on a subsequent response will be considered. |
| **Half Marks** | Half marks must not be awarded for a response or carried over to subsequent questions. |
| **Crossing Out** | If a student response has been crossed out, the part crossed out should not be considered. |
| **Modules** | Where a student responds to more modules than required, the assessor must assess all responses. |
| **Options** | Where a student responds to more than one option, the assessor must assess all responses according to the Assessment Guide and award the student the highest score, indicating the option selected. |
| **Not Attempted vs Zero (0)** | Where a student has **not made a genuine attempt** to respond to the question, assessors should score the response as ‘Not Attempted’. This may include:   * Blank responses * ‘I don’t know’ * Repeating the question, task, source material, or any other text directly from the examination * A response with no relevance to the question, i.e.: song lyrics   Where a student has made a genuine attempt to respond to the question, assessors should score the response as ‘0’ (zero) where:   * The student has crossed out their whole response or * The student’s response does not meet the assessment criteria to be awarded any marks |

Student Concern

Occasionally, assessors encounter a response that may raise concerns about the welfare of the student. Examples may include:

* suggestions or claims of abuse or neglect
* indications of distress, self-harm or suicidal tendencies
* threats of violence, harm, or criminal acts involving others.

In such cases, assessors should assess the student work in accordance with the Assessment Guide and send the student script/item to be reviewed according to the instruction on the next page.

**Any matter of concern that an assessor believes requires urgent attention should be referred to the VCAA immediately via call to the helpdesk.**

Sending student responses to review

During marking assessors may identify student responses to be escalated for review by the Chief Assessor or to be noted by VCAA staff. The review categories are:

|  |  |
| --- | --- |
| Category | Description |
| **Illegible response** | You are unable to read the student’s response. |
| **Incomplete student work** | The student appears to be missing part of their response or has indicated it continues in another area that is not attached as an attachment. |
| Possible connection to student | You recognise the student’s work. Please provide details. |
| Student concern | There is evidence of student distress. |
| Technical Issue (VOSS Helpdesk) | You are not able to continue scoring this exam or item due to a technical issue. Only use this category if you have contacted VOSS support on 1800 820 122. |

Below is a list of common issues that may arise, and how to respond to these:

|  |  |
| --- | --- |
| Issue | Action |
| Evidence of student distress or concern.  Note:  Student concern does not include unfinished work or work that is off-task. | Assess the student response using the Assessment Guide.  Send the student response for review, selecting the ‘student concern’ review category. |
| The student’s handwriting is too faint to read, and you are unable to read and score the student response accurately.  **Note:** Some student responses may include different handwriting or typed responses. This is usually due to Special Examination Arrangements and therefore does not need to be reported to the VCAA. | Make every effort to read the student’s work. If unable to read the response, send the script for review, selecting the ‘illegible response’ review category. |
| The student’s response appears to be unfinished, or they have indicated their response continues on another page that is not attached. | Refer to the Assessment Guide and score this as the student’s response, and send the student response for review, selecting ‘incomplete student work’ review category. |
| The control of the mechanics of language is not sufficient to communicate a coherent response. | Refer to the Assessment Guide and score this as the student’s response. You may contact the Chief Assessor for advice on how best to score the response. |
| Responses in Languages other than English | Unless otherwise stated, responses in a language other than English should not be awarded marks and should be scored zero (0). |

Marking Guide – Section B

Question 1 (5 marks)

|  |  |  |
| --- | --- | --- |
| 1a | ACT | 1A |
| 1b | 32 % | 1A (% symbol not required) |
| 1c | 3 : 2 or  (anywhere) | 1A (Labels needed if ratio is given as 2 : 3) |
| 1d | Residential land area = | 1M evidence of using the rule correctly.    1A correctly rounded   * (answer only: 1 mark) * okay |

Question 2 (5 marks)

|  |  |  |
| --- | --- | --- |
| 2a | $ | 1A (one decimal place okay)  $ symbol not needed |
| 2b | Maximum authorised =  //  Resale price = $530 // $265  530 > 527.78 // 265 > 263.89 (resale > authorised)  Sale is not authorised  OR  >10%  OR  >10% | 1M – calculation showing 10% increase on either correct total (or single ticket) **or** calculating percentage increase **or** difference.  1A – valid reasoning (can be just the correct inequality statement) |
| 2c | B - reserve = 17 and D - reserve = 25 | 1M – one correct simultaneous equation **or**  one correct value of B or D  1A – two correct values (answers only award 2 marks) |

Question 3 (5 marks)

|  |  |  |
| --- | --- | --- |
| 3a | kg (520 g) | 1A (units not required) |
| 3b | Price/tart =  OR    OR    Price/tart = $0.57 or 57c | 1M  Tart ingredient/purchase  OR  Cost/tart ingredient  OR  Cost/unit purchase More than one  1A – correct answer (need $ symbol if 0.57) |
| 3c | 2.6 *g*  9.3% () | 1A – correct fibre intake for 2 jam tarts  1T – Their correct answer (must have 28 in denominator; calculation required) |

Question 4 (5 marks)

|  |  |  |
| --- | --- | --- |
| 4a | 85 % | 1A |
| 4b | 15th and the 50th  Weight is in the lower half of weights for babies of this age.  Weight is below the median.  Weight is lighter than the 50th and heavier than the 15th. | 1A – Identifying the 15th and 50th percentile.  1T – statement identifying a valid comparison for their identified percentiles. |
| 4ci | Linear extrapolation of the shown on graph starting at 50th percentile | 1A (must be linear) at 3 years, tolerance between 13.6 to 14.4 kg at the 3-year stage. |
| 4cii | Predicted weight for a 3 year- old is 13.6 – 14.4 kg. | 1A – value of predicted.  (check graph for answer) |

Question 5 (5 marks)

|  |  |  |
| --- | --- | --- |
| 5a | Traffic navigation apps | 1A (can accept traffic)  (Could be circled on graph) |
| 5bi | Facial recognition. | 1A – correct technology |
| 5bii | 200 (people) | 1A – correct number |
| 5c | * The majority (55% or more) of responders chose ‘concerned’ at the level of AI being used in content areas which was more than any other level of concern. * An example is personalized advertising where 64% showed ‘concerned’, 19% were neutral while 14% were unconcerned. All other types showed similar statistics.   OR   * The ‘concerned’ level shows the greatest variation (15%) compared to 8% for ‘neutral’, 9% for ‘unconcerned’ and 1% for ‘not sure’. * Product descriptions (70%) and music or movie/TV show recommendations (55%) showed the variation of 15%. | 1A – general trend (not a feature for a single AI category or key)  1T- specific and accurate example for their feature |

Question 6 (5 marks)

|  |  |  |
| --- | --- | --- |
| 6ai | $1 291 000 | 1A (units not needed)  ‘1.291 million’ okay |
| 6aii | = (71000)  % diff = | 1T – their difference statement of calculation (calculation needed)  1A – percentage (answer only: 1 mark) |
| 6b |  | 1M – Evidence of valid reasoning to find missing house price  1A – correct answer (units not required)  Answer only: 1 mark |

Question 7 (5 marks)

|  |  |  |
| --- | --- | --- |
| 7a | Total paid =  $7008  (If a complete statement is given, must be algebraically correct). | 1M – adding to $5000 or including 48 x $646  1A – total interest (unit not required) answer only: 1 mark |
| 7bi | Value loss in 1 year =  =(=$4800)  (Can be calculated as separate components, then added) | 1M – calculation for 15%  1M – calculation $0.03  (full calculation: 2 marks)  (subtraction operator: 1 mark only) |
| 7bii | 6 years | 1A – correct answer  (accept 5.4)  (units not required) |

Question 8 (5 marks)

|  |  |  |
| --- | --- | --- |
| 8a | Tax inc = 84000 – 2400 – 150 – 260 – 150 – 150 x 12  = $ 79 240  (look for vertical presentations) | 1A ‘Show that’ question. Must have working and algebraic correctness |
| 8b | OR $45001 - $120000 | 1M – identify ‘correct tax-bracket  1A – correct answer (answer only: 1 mark) |
| 8c | Contributions =  =  $14 440 | 1M – either personal contribution calculation or guarantee calculation.  1A – correct answer (answer only: 1 mark) |

Question 9 (5 marks)

|  |  |  |
| --- | --- | --- |
| 9a | (r =)  (note  0 marks) | 1A – ‘Show that’ question. Must have working and algebraic correctness.  Must be r = … |
| 9b | $22.38  Interest is calculated on a reducing balance, therefore interest gets smaller over time.  $5617.58 - $5595.20 (must see subtraction) | 1A – difference  WITH  1A – must reference reducing balance or interest is calculated in a smaller amount ….  OR  1M Difference statement with correct values. |
| 9c | Interest/month =  Interest/year = interest x 12  WITH  Total  OR  Total = | ‘Show that’ question.  Must have working and algebraic correctness.  1M – including a statement for monthly interest or interest for year.  1A – correct mathematical statement. |

Question 10 (5 marks)

|  |  |  |
| --- | --- | --- |
| 10a |  | 1A – correct area (units not required) |
| 10bi | (Also accept )  (4238.45.. 1 mark) | 1M – multiplying their area by 0.15  1A – correct answer (units not required)  Calculation involving perimeter can get the volume (1A) mark |
| 10bii | = () | 1T – their correct answer (calc needed) |
| 10c | 9 hours | 1A – correct time |

Question 11 (5 marks)

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| --- | --- | --- |
| 11a | 9.6 metres  13.1 metres  More than this: 1 mark  E.g. 13.1 and 11.9 and 9.6 and 3.9 around plan | 1A – width  1A – length  (units are not required)  (if labelled incorrectly: 1 mark only) |
| 11b | OR  Look at original plan for this possible calculation:  Area of living room: 3.9 x 5.5 = (4 x 6) = 21.45 m­­2 | 2A – both costs  (One correct cost: 1 mark)  (Costs around wrong way: 1 mark)  OR  If both costs incorrect  1M – living room area |
| 11c | 8 litre tin | 1A – correct tin size  (could be circled in table) |

Question 12 (5 marks)

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| --- | --- | --- |
| 12a | 80 cm x 50 cm x 40 cm (any order) | 1A (units not required )  (Other correct variations need units) |
| 12b | OR | 1A – rotation  1A – correct size  OR  1A – one correct letter  (accurate by hand okay) |
| 12c | Volume of tank =  14 fish | 1M – calculation to find volume in litres  1A – number of fish  (answer only: 1 mark) |