**TQUK Functional Skills   
Qualification in Mathematics at Entry Level 3**

Sample Examination Paper: Mark Scheme

**Mark Scheme Information**

This mark scheme is intended to support the valid and consistent marking of the examination paper identified above. This mark scheme includes:

* the total marks available for each question
* the individual coverage and mapping of each question as well as coverage totals
* the marking process and considerations which could or should be followed
* the types of responses expected for each mark.

**Information for the Assessor**

* This mark scheme document covers both Section A (Non-Calculator) and Section B (Calculator).
* All marking must be completed consistently, and the mark scheme must be applied fairly.
* Assessors should award full marks if the learner's response is worthy of full marks.
* Questions where marks are awarded for working will always state ‘show your workings’ or a similar statement.
* Assessors should not award marks if the learner’s response does not meet the requirements of the mark scheme for that question.
* Individual marks awarded to the learner should be annotated clearly on the learner’s script. Once calculated and checked, overall marks achieved by the learner must be included in the relevant area on the last page of the examination papers.
* Section A and Section B examination papers should be collated and the total marks recorded on the last page of the Section B examination paper.

**Marking Guidance**

* Where the mark scheme states: ‘Accept any clear indication’, accept any clear indication, for example:
  + tick
  + cross
  + underline
  + diagonal line
  + circling.
* Accept answers that have been clearly given even if they are not written in the answer box.
* Working out is not required to be shown unless stated in the question.
* Accept correct answers written in the working box if the answer box is blank.
* If the answer written in the working box has been copied over incorrectly to the answer box, award marks.
* If more than one response has been given, award a mark for the correct response provided the incorrect responses have been clearly crossed-out.
* Crossed-out work can be marked providing it is legible and has not been replaced.
* If the answer is written in words, then accept any identifiable spelling.
* Unless otherwise stated in the mark scheme, if the answer is a number, then accept the answer written in:
* figures
* words with any identifiable spelling.
* Information given in square brackets in the mark scheme is not required to award marks.
* Unless otherwise stated in the mark scheme, units can be ignored if given.
* Alternative symbols for division may be accepted, such as a slash.
* If marks are available for the use of a money symbol, accept the relevant symbol in the correct format, for example:
  + £15 or £15.00
  + 10p or £0.10
  + do not accept £15.0 or £15.00p or 15£ or £0.1
* For an example on how to award marks, see the table on the next page.

**Example for Assessor:**

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| **1.** | Alex has to put 15 books on a shelf.  The shelf can hold 20 books.  Can Alex fit all the books on the shelf?  **Show why you think this.**  **[2]** |

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| **Mark Scheme** | |
| **Total Marks** | **Answer/Examples & Further Considerations/Comments** |
| **2** | Award **two** marks for a correct decision **AND** correct supporting value/reason, up to a maximum of **two** marks, for example:   * yes **AND** 15 [books] is less than 20 **(2)** * yes **AND** 5 spaces left/remain [on the shelf] **(2)**   **OR**  Award **one** mark if only a correct supporting value/reason is given, up to a maximum of **one** mark, for example:   * 15 [books] is less than 20 **(1)** * 5 [spaces] left/remain [on the shelf] **(1)**   Information given in [brackets] is **not** required to award the marks.  A maximum of **two marks** can be awarded for this question. |

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| **Learner Responses** | **Marks Awarded** | **Reasons for Marks Awarded** |
| Yes, because up to 20 books can fit | 2 | Correct decision and correct reason given. |
| Yes, because 15 is less than 20 | 2 | Correct decision and correct reason given. |
| Yes, because there are 5 spaces left | 2 | Correct decision and correct reason given. |
| 5 spaces are left | 1 | Correct reason but no decision given. |
| No, 15 is less than 20 | 1 | Incorrect decision but correct reason given. |
| There are 15 books | 0 | No decision or reason given. |
| Yes | 0 | Correct decision however no reason given.  Both decision and reason are required. |
| No | 0 | Incorrect decision and no reason given. |
| No, 7 books | 0 | Incorrect decision and incorrect reason given. |

**Section A: Non-Calculator**

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| **Q** | **Total Marks** | **Answer/Examples &**  **Further Considerations/Comments** | **PS/ UPS** | **SC** |
| **1** | 1 | Award **one** mark for the correct answer only, up to a maximum of **one** mark:   * 215 **(1)** | UPS | UN2b |

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| **2** | 1 | Award **one** mark for the correct answer only, up to a maximum of **one** mark, for example:   * ten past four **(1)** * 4:10 **(1)**   Accept any other suitable time format.  Ignore am or pm. | UPS | UCM  13a |

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| **3** | 1 | Award **one** mark for the correct answer only, up to a maximum of **one** mark:   * 583 **(1)** | UPS | UN2a |

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| **4** | 1 | Award **one** mark for only the correct frequency values in the table, up to a maximum of **one** mark:   |  |  |  | | --- | --- | --- | | Cheese | 5 | **(1)** | | Ham | 7 |   **Both** values must be correct to award the mark.  **Do not accept tally marks without the frequency values.** | UPS | HID21 |

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| **Q** | **Total Marks** | **Answer/Examples &**  **Further Considerations/Comments** | **PS/**  **UPS** | **SC** |
| **5** | 2 | Award **one** mark for **any** correct method, up to a maximum of **one** mark, for example:   * 148 ÷ 4 **(1)**   **AND/OR**  Award **one** mark for the correct answer only, up to a maximum of **one** mark:   * 37 [sweets] **(1)**   Information given in [brackets] is **not** required to award the mark.  A maximum of **two marks** can be awarded for this question. | PS | UN3a |

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| **6** | 2 | Award **two** marks for a correct decision **AND** correct supporting value/reason, up to a maximum of **two** marks, for example:   * no **AND** 400 [g] **(2)** * no **AND** 250 [g] **(2)**   **OR**  Award **one** mark if only a correct method **OR** supporting value/reason is given **without** a decision, up to a maximum of **one** mark, for example:   * 200 × 2 **(1)** * 500 ÷ 2 **(1)** * 400 [g] **(1)** * 250 [g] **(1)**   **Do not award any marks for the correct decision without a supporting value/reason.**  Units are **not** required to award the marks.  A maximum of **two marks** can be awarded for this question. | PS | UCM16 |

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| **Q** | **Total Marks** | **Answer/Examples &**  **Further Considerations/Comments** | **PS/**  **UPS** | **SC** |
| **7** | 2 | Award **one** mark for **any** correct method, up to a maximum of **one** mark, for example:   * 64 × 8 **(1)**   **AND/OR**  Award **one** mark for the correct answer only, up to a maximum of **one** mark:   * 512 [chocolate bars] **(1)**   Information given in [brackets] is **not** required to award the mark.  A maximum of **two marks** can be awarded for this question. | PS | UN4a |

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| **Total: 10 marks** |

**Section B: Calculator**

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| **Q** | **Total Marks** | **Answer/Examples &**  **Further Considerations/Comments** | **PS/**  **UPS** | **SC** |
| **1** | 1 | Award **one** mark for the correct answer only, up to a maximum of **one** mark:   * four hundred [and] sixteen **(1)**   Accept any identifiable spelling.  Information given in [brackets] is **not** required to award the mark. | UPS | UN1a |

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| **2** | 1 | Award **one** mark for the correct answer only, up to a maximum of **one** mark:   * 53, 502, 520 **(1)** | UPS | UN1b |

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| **3** | 1 | Award **one** mark for the correct answer only, up to a maximum of **one** mark:   * north-west **(1)**   Accept any identifiable spelling. | PS | UCM20 |

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| **4** | 1 | Award **one** mark for the correct answer only, up to a maximum of **one** mark:   * C **(1)**   Accept any clear indication.  **Do not award any marks if more than one box is indicated.** | UPS | UN7 |

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| **5** | 1 | Award **one** mark for the correct answer only, up to a maximum of **one** mark:   * 23 **(1)** | UPS | UN6 |

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| **Q** | **Total Marks** | **Answer/Examples &**  **Further Considerations/Comments** | **PS/**  **UPS** | **SC** |
| **6** | 1 | Award **one** mark for the correct answer only, up to a maximum of **one** mark:   * C **(1)**   Accept any clear indication.  **Do not award any marks if more than one box is indicated.** | PS | UCM  19a |

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| **7** | 1 | Award **one** mark for the correct answer only, up to a maximum of **one** mark:   * B **(1)**   Accept any clear indication.  **Do not award any marks if more than one box is indicated.** | UPS | UCM18 |

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| **8** | 1 | Award **one** mark for the correct answer only, up to a maximum of **one** mark:   * Chen **(1)**   Accept any clear indication.  Accept any identifiable spelling. | PS | UN8 |

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| **9** | 1 | Award **one** mark for the correct answer only, up to a maximum of **one** mark:   * D **(1)**   Accept any clear indication.  **Do not award any marks if more than one box is indicated.** | UPS | UCM  12a |

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| **Q** | **Total Marks** | **Answer/Examples &**  **Further Considerations/Comments** | **PS/**  **UPS** | **SC** |
| **10** | 2 | Award **two** marks for the correct answer given with **units**, up to a maximum of **two** marks:   * 1:45 pm **(2)**   The time **must** be given in the 12-hour clock format.  **OR**  Award **one** mark if **any** correct method **OR** a suitable time value **without units** is given, up to a maximum of **one** mark, for example:   * 9:30 + 4 hours 15 minutes **(1)** * 1:45 **(1)** * 13:45 **(1)**   A maximum of **two marks** can be awarded for this question. | PS | UCM  12b |



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| **Q** | **Total Marks** | **Answer/Examples &**  **Further Considerations/Comments** | **PS/**  **UPS** | **SC** |
| **11** | 2 | Award **one** mark for a ‘Romance’ bar with a height of 3, up to a maximum of **one** mark, for example:  **(1)**  Accept any mark intention shown on the chart.  **AND/OR**  Award **one** mark for the correct labelling of **both** vertical and horizontal axes, up to a maximum of **one** mark, for example:  **(1)**  Accept any suitable axis labels.  A maximum of **two marks** can be awarded for this question. | PS | HID23 |

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| **Q** | **Total Marks** | **Answer/Examples &**  **Further Considerations/Comments** | **PS/**  **UPS** | **SC** |
| **12** | 2 | Award **two** marks for a correct decision **AND** correct supporting value/reason, up to a maximum of **two** marks, for example:   * no **AND** [£]360 **(2)** * no **AND** 25 [children] **(2)** * no **AND** [£]10 [per child] **(2)** * no **AND** [£]60 [more is needed] **(2)**   **OR**  Award **one** mark if **any** correct method **OR** supporting value/reason is given **without** a decision, up to a maximum of **one** mark, for example:   * 30 x 12 **(1)** * [£]360 **(1)** * 300 ÷ 12 **(1)** * 25 **(1)** * 300 ÷ 30 **(1)** * [£]10 **(1)** * 30 x 12 - 300 **(1)**   Information given in [brackets] is **not** required to award the marks.  **Do not award any marks for the correct decision without a supporting value/reason.**  A maximum of **two marks** can be awarded for this question. | PS | UN4b |

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| **Q** | **Total Marks** | **Answer/Examples &**  **Further Considerations/Comments** | **PS/**  **UPS** | **SC** |
| **13** | 2 | Award **two** marks for a correct decision **AND** correct supporting value/reason, up to a maximum of **two** marks, for example:   * no **AND** 50 [ml more] **(2)** * no **AND** [60 ml less would be] 340 [ml] **and** [NOT] 350 [ml] **(2)** * no **AND** [60 ml more would be] 410 [ml] **(2)**   **OR**  Award **one** mark for correctly reading the scale **without** a decision, up to a maximum of **one** mark:   * 350 [ml] **(1)**   **OR**  **If no marks are awarded, allow one follow-through mark for a correct decision using the learner’s reading from the jug, up to a maximum of one mark, for example:**   * yes **AND** [Luca has] 340 [ml which is 60 mm less than Zuri] **(1)** * no **AND** [Luca has] xx\* [ml which is not 60 ml less than Zuri] **(1)**   \*any value apart from 340  Information given in [brackets] is **not** required to award the marks.  **Do not award any marks for the correct decision without a supporting value/reason.**  A maximum of **two marks** can be awarded for this question. | PS | UCM17 |
| UCM14 |

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| **Q** | **Total Marks** | **Answer/Examples &**  **Further Considerations/Comments** | **PS /**  **UPS** | **SC** |
| **14** | 2 | Award **two** marks for a correct decision **AND** correct supporting value/reason, up to a maximum of **two** marks, for example:   * yes **AND** 280 [cm] **(2)** * yes **AND** 20 [cm ribbon left] **(2)** * yes **AND** 75 [cm] **(2)**   **OR**  Award **one** mark if **any** correct method **OR** supporting value/reason is given **without** a decision, up to a maximum of **one** mark, for example:   * 70 x 4 **(1)** * 280 [cm] **(1)** * 300 – 70 – 70 – 70 – 70 **(1)** * 20 [cm] **(1)** * 300 ÷ 4 **(1)** * 75 [cm] **(1)**   Information given in [brackets] is **not** required to award the marks.  **Do not award any marks for the correct decision without a supporting value/reason.**  A maximum of **two marks** can be awarded for this question. | PS | UCM15 |

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| **Q** | **Total Marks** | **Answer/Examples &**  **Further Considerations/Comments** | **PS/**  **UPS** | **SC** |
| **15** | 2 | Award **two** marks for the correct answer only, up to a maximum of **two** marks:   * 1.65 [km] **(2)**   **OR**  Award **one** mark for only the correct distance of the third marker, up to a maximum of **one** mark:   * 1.50 [km] **(1)**   **OR**  Award **one** mark for only the correct distance between each marker, up to a maximum of **one** mark:   * 0.15 [km] **(1)**   Units are **not** required to award the marks.  A maximum of **two marks** can be awarded for this question. | PS | UN9 |

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| **Q** | **Total Marks** | **Answer/Examples &**  **Further Considerations/Comments** | **PS/**  **UPS** | **SC** |
| **16** | 3 | Award **one** mark for **any** correct method, up to a maximum of **one** mark, for example:   * [£]3.08 + [£]1.48 **(1)**   **AND/OR**  Award **one** mark for the correct answer only, up to a maximum of **one** mark:   * [£]4.56 **(1)**   **AND/OR**  Award **one** mark for correctly rounding the answer to the **nearest pound**, up to a maximum of **one** mark:   * [£]5[.00] **(1)**   **If no marks are awarded, allow one follow-through mark for correctly rounding an incorrect total to the nearest pound.**  Information given in [brackets] is **not** required to award the marks.  A maximum of **three marks** can be awarded for this question. | PS | UCM10 |
| UCM11 |

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| **Q** | **Total Marks** | **Answer/Examples &**  **Further Considerations/Comments** | **PS/**  **UPS** | **SC** |
| **17** | 3 | Award **three** marks for a correct decision **AND** correctly **rounded** supporting values, for example:   * no **AND** 100 + 200 + 400 = 700[points] **(3)**   **OR**  Award **two** marks for a correct decision **AND** anattempt toround values (e.g. to the nearest 10) **OR** providing a total value only, up to a maximum of **two** marks, for example:   * no **AND** 70 + 240 + 390 **(2)** * no **AND** 700 [points] **(2)**   **Do not accept the correct decision and unrounded total e.g. 709.**  **OR**  Award **two** marks for correctly adding the correct **rounded** values **AND** a correct total value **without** a decision, up to a maximum of **two** marks, for example:   * 100 + 200 + 400 = 700 [points] **(2)**   **OR**  Award **one** mark for **either** only correctly rounded values **OR** attempt at rounding values **OR** the correct addition of rounded values **without** a total **OR** only a total value, up to a maximum of **one** mark, for example:   * 100 **AND** 200 **AND** 400 **(1)** * 100 + 200 + 400 **(1)** * 70 + 240 + 390 **(1)** * 700 [points] **(1)**   Information given in [brackets] is **not** required to award the marks.  **Do not award any marks for the correct decision without a supporting value/reason.**  A maximum of **three marks** can be awarded for this question. | PS | UN5b |

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| **Q** | **Total Marks** | **Answer/Examples &**  **Further Considerations/Comments** | **PS/**  **UPS** | **SC** |
| **18** | 3 | Award **three** marks for a correct decision **AND** correct supporting values/reason, up to a maximum of **three** marks, for example:   * no **AND** 100 [mm] **AND** [NOT] 80 [mm] **(3)** * no **AND** [rainfall in May is]40 [mm] **AND** [NOT] 50 [mm] **(3)**   **OR**  Award **one** mark for at least **one** correct reading from the graph, up to a maximum of **one** mark, for example:   * 40 [mm] **(1)** * 100 [mm] **(1)**   Accept the written reading or reading indicated on the graph.  **AND/OR**  Award **one** mark if a correct method **OR** correct supporting value/reason is given, up to a maximum of **one** mark, for example:   * 40 x 2 **(1)** * 80 [mm] **(1)** * 100 ÷ 2 **(1)** * 50 [mm] **(1)**   Accept any alternative method to count up **OR** down the scale.  **If no marks are awarded, allow one follow-through mark for a correct method or supporting value using the learner’s readings from the graph.**  **Do not award any marks for the correct decision without a supporting value/reason.**  Information given in [brackets] is **not** required to award the marks.  A maximum of **three marks** can be awarded for this question. | PS | HID22 |

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| **Total: 30 marks** |

**Mapping Matrix**

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| **Totals** | UN | UCM | HID | PS | UPS | SC |
| Section A | 6 | 3 | 1 | 6 | 4 | 6 |
| Section B | 12 | 13 | 5 | 24 | 6 | 17 |
| Total (%) | 45% | 40% | 15% | 75% | 25% | 23/23 |

**Ofqual Mapping Requirements**

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|  | UN | UCM | HID | PS | UPS | SC |
| Total (%) | 40 - 50% | 40 - 55% | 10 - 20% | 73 - 77% | 23 - 27% | 18/23 |

**Subject Content Glossary**

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| Coverage Term | Definition |
| UN | Using numbers and the number system. |
| UCM | Using common measures, shape and space. |
| HID | Handling information and data. |
| PS  (Problem Solving) | The ability to apply mathematical thinking effectively to solve problems. |
| UPS  (Underpinning Skills) | The ability to do maths when not as part of a problem. |

**End of Mark Scheme**