**Essential Skills**

**Application of Number**

**The Takeaway**

**Level 2**

**Guidance notes for Application of Number Mark Scheme - Assessment Material Level 2**

This mark scheme is provided as a guide for teachers/tutors and candidates to identify the requirements of the assessment. It shows the basis on which marks will be awarded by the Awarding Body.

* The mark scheme must be applied consistently across all papers
* Candidates must be credited with marks for what they have shown they can do rather than penalised for errors.
* Candidates may provide other alternative but acceptable methods for answering questions to those given in the mark scheme. This will be denoted as oa.
* Follow-through marks should be awarded where a subsequent correct process uses a previous incorrect answer.
* Transcription errors will not be penalised where the candidate clearly demonstrates a correct answer in working but incorrectly transcribes this to the answer line.

Acceptable follow through responses will identified with speech marks e.g. ‘0.34’

* Where units are not specified on the answer line, candidates should provide units for the answer. Normal conventions will be expected e.g. £3.5 should be given as £3.50 or 350p.

**Total marks available: 50**

**Mark Scheme**

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| --- | --- | --- | --- |
| **Question** | **Available mark** | **Mark Allocation** | **Answers** |
| **1a** | **3** | 3 for correctly completed table  **OR**  1 for correct calculation of balance on 3/1/18  1 for correct calculation of credit on 11/1/18 using their value  1 for correct calculation of balance on 31/1/18 using their value | |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Date** | **Description** | **Credit** | **Debit** | **Balance** | | 1/1/18 | Sales | £3375.00 |  | £4452.65 | | 3/1/18 | Supplies |  | £4488.76 | -£36.11 | | 11/1/18 | Tax refund | £125.51 |  | £89.40 | | 18/1/18 | Sales | £4880 |  | £4969.40 | | 31/1/18 | Building work |  | £5352 | -£382.60 |   **OR**  4452.65-4488.76= -£36.11  -36.11+125.51=89.40  4969.40 – 5352 = -£382.60 |
| **1b** | **1** | 1 for a sensible answer | Judith should be concerned because her bank account is overdrawn. |
| **1c** | **5** | 5 for correct number of cod suppers  **OR**  1 for measuring sausage supper sector as 90o  1 for total number of meals using their value  1 for correct measurement of angle representing cod supper sector  1 for calculating angle as a fraction of total using their value  1 for calculating their fraction of total number of meals | 568  **OR**  90° = 426 meals  360° = 426 x 4 = 1704 meals  120°  120°/360° = 1/3  1/3 of 1704 = 568 |
| **1d** | **1** | 1 for suitable check |  |
| **1e** | **6** | 6 for correct answer with calculation evidence  **OR**  1 for metric conversion of tile width  1 for correctly calculating area of tile  1 for correctly calculating area of each rectangle  1 for total area of floor  1 for correctly dividing total area by area of tile  1 for comparing answer with number of tiles in the box  **oa**  1 for metric conversion of tile width  1 for correctly calculating area of tile  1 for correctly calculating area of each rectangle  1 for total area of floor  1 for correctly dividing total area by area of tile  1 for comparing answer with number of tiles in the box | Yes  **OR**  90cm = 0.9m  0.9 × 0.9 = 0.81 m2  1.8 × 3 = 5.4m2  3.6 × 5 = 18m2  18 + 5.4 = 23.4 m2  23.4 ÷ 0.81 = 28.9  28.9 < 32 so answer is yes  **oa**  90cm = 0.9m  0.9 × 0.9 = 0.81 m2  1.8 × 6.6 = 11.88m2  3.6 × 3.2 = 11.52m2  11.88 + 11.52 = 23.4 m2  23.4 ÷ 0.81 = 28.9  28.9 < 32 so answer is yes |
| **1f** | **2** | 2 for correct bar shown on the bar chart with correct answer on answer line  **OR**  1 for correct calculation  1 for correct bar on bar chart using their value | 65 counter orders in week 4  **OR**  360 -120 -85 - 90 = 65 |
| **1g** | **3** | 3 for correct answer  **OR**  1 for correctly identifying the value of each bar  1 for correct addition using their values  1 for dividing by 4 using their value | 210  **OR**  230, 190, 180, 240  840  840/4 = 210 |
| **1h** | **1** | 1 for sensible reason | Ted might think of hiring another driver because only in Feb has the number of telephone orders been consistently greater than the number of counter orders across the four weeks. Therefore, a greater number of customers want their meals delivered to their home |
| **1i** | **3** | 3 marks for correct answer  **OR**  1 mark for calculating that there is one less token in the bag  1 mark for correct probability  1 for percentage | 6%  **OR**  51 – 1 = 50  3/50  6% |

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| **Question** | **Available mark** | **Mark Allocation** | **Answers** |
| **2a** | **3** | 3 for correct answer with calculations  **OR**  1 for correctly reading from the right column and identifying time arriving at Greenway  1 for calculating time arriving at work using their value  1 for correct deduction from their value | No  **OR**  Arriving Greenway at 8:09  8:09 + 0:05 + 00:20 = 08:34  No |
| **2b** | **3** | 3 for correct answer  **OR**  1 for getting correct number of shares  1 for correctly calculating 1 share  1 for calculating Mike’s share | £24.50  **OR**  7 + 4 = 11  38.5/11 = 3.5  7×3.5= £24.50 |

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| **2c** | 4 | 4 for correct answer with calculations  **OR**  1 for reading sugar from table  1 for calculating the amount of sugar in the can  1 for calculating the number of cans to reach Mike’s RDA  1 for rounding to whole number of cans so RDA is not exceeded | 4 cans  **OR**  10.8g  10.8 \* 2.5 = 27g  120 / 27 = 4.44 cans  4 cans |
| **2d** | 3 | 3 for any correct suggestion  **OR**  1 Fri and Sat full shifts  1 three evenings working and 1 evening with 0 hours  1 for total of 20 hours  **oa**  1 Fri and Sat full shifts  1 three evenings working and 1 evening with 0 hours  1 for total of 20 hours | |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Day of week** | **Sun** | **Mon** | **Tue** | **Wed** | **Thur** | **Fri** | **Sat** |  | | **Hours** | 0 | **0** | **4** | **3** | **3** | **5** | **5** | ***Total* 20** |   **OR**  12 – 7 = 5 hours, Fri and Sat 5 hours  One evening zero hours and other three evenings total to 10 hours  Total hours should amount to 20  **oa**   |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Day of week** | **Sun** | **Mon** | **Tue** | **Wed** | **Thur** | **Fri** | **Sat** |  | | **Hours** | 0 | **0** | **3** | **2** | **5** | **5** | **5** | ***Total* 20** | |
| **2e** | 4 | 4 for correct answer with calculation justification  **OR**  1 for correct substitution  1 for correct calculation of bracket  1 for correct calculation of subject using their value  1 for correct response based on comparing their answer with required temperature using their value | No  **OR**  T = 22 + 0.33(95 – 22)  0.33 × 73 = 24.09  T = 46.09oC  46.09oC < 63oC |
| **2f** | 5 | 5 for correct response with calculations  **OR**  1 for correct conversion of carton dimensions  1 correctly orientating the box and carton  1 for fitting correct number of cartons on bottom layer using their values  1 for correct number of layers  1 for correct number of cartons using their values | 48 cartons  **OR**  Carton is 30cm by 15cm by 5cm  60/30 = 2 and 45/15 = 3  3 × 2 = 6  42/5 = 8r2 i.e. 8 layers  6 × 8 = 48 |
| **2g** | 3 | 3 for correct answer  **OR**  1 for putting times in ascending/descending order  1 for identifying the middle two times  1 for correct calculation of median | 16 minutes  **OR**  12, 13, 14, 15, 17, 18, 20, 20  15 and 17 minutes  Median is (15 + 17)/2 = 16 mins |