**Essential Skills**

**Application of Number**

**Level 1 – Buying a puppy**

**Guidance notes for Application of Number Mark Scheme - Assessment Material Level 1**

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: 45**

**Mark Scheme – Task 1**

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| --- | --- | --- | --- | --- | --- | --- |
| **Question** | | **Available marks** | | **Mark Allocation** | | **Answers** |
| 1a | | 1 | | 1 for correct answer | | £330 |
| 1b | | 2 | | 2 for correct answer  **OR**  1 for calculating amount outstanding  1 for dividing outstanding amount by savings per month | | 4 months  **OR**  440 – 330 = £110  110 ÷ 27.5 = 4 months |
| 1c | 3 | | 3 for correct answer  **OR**  1 for missing sides  1 for perimeter (using their values)  1 for knowing not to include the 1m gap | | 9 panels  **OR**  2m each  10m  Perimeter – 1 = 9 panels | |

|  |  |  |  |
| --- | --- | --- | --- |
| 1d | 4 | 4 for correct answer  **OR**  1 for converting 500mm to m  1 for working out area of rectangle  1 for working out area of a slab  (using their values)  1 for dividing area of rectangle by area of slab  (using their values)  **oa**  1 for converting 500mm to m  1 for working out number of slabs along length  1 for working out number of slabs along breadth  1 for working out number of slabs to cover area  (using their values) | 12 slabs  **OR**  0.5 m  3 × 1 = 3m2  0.5 × 0.5 = 0.25m2  3 ÷ 0.25 = 12  **oa**  0.5 m  3 / 0.5 = 6 slabs  1 / 0.5 = 2 slabs  6 \* 2 = 12 slabs |
| 1e | 3 | 3 for correct answer  **OR**  1 for finding discount offered by Shop A  1 for finding discount offered by Shop B  1 for finding the difference between the two discounts (using their values)  **oa**  1 for finding cost of paint at Shop A  1 for finding cost of paint at Shop B  1 for finding difference in prices | £0.81  **OR**  16.2 × 0.3 = 4.86  16.2 ÷ 4 = 4.05  4.86 – 4.05 = £0.81  **oa**  16.2 \* 0.7 = £11.34  16.2 \* 0.75 = £12.15  12.15 – 11.34 = £0.81 |
| 1f | 2 | 2 for correct answer  **OR**  1 for correctly measuring the scale drawing  1 for correctly using scale | 15 km  **OR**  6cm  6 × 2.5 = 15km |

**Mark Scheme – Task 2**

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| --- | --- | --- | --- |
| 2a | 2 | 2 for correct answer with calculations  OR  1 for correct sector & proportion  1 for correct value | Yes  OR  Cockapoo = ½ or 50%  ½ or 50% of 60 = 30 |
| 2b | 3 | 3 for correct answer  **OR**  1 for correct sectors & proportion for poodle and collie  1 for finding value of collie sector  (using their values)  1 for correct fraction for collie sector  AND for fraction in simplest form  (using their values) | 1/3  **OR**  Poodles + collies = ½ or 30  30 – 10 = 20  = |
| 2c | 2 | 2 for correct answer  **OR**  1 for identifying correct amount from the table  1 for calculating food per meal | 25g  **OR**  75g  75 ÷ 3 = 25g |
| 2d | 3 | 3 for correct answer  **OR**  1 for identifying the correct values  1 for forming a ratio in correct order (their values)  1 for simplest form (their values but only if simplification is possible) | 3:4  **OR**  150 and 200  150:200  3:4 |
| 2e | 1 | 1 for correct answer with suitable explanation | Yes because -6oC is colder than -5oC |
| 2f | 1 | 1 for correct answer. (Calculation not necessary. Candidates may use mental maths) | 29oC |
| 2g | 3 | 3 for correct answer  **OR**  1 mark for reading the values correctly  1 mark for correct total (using their values)  1 mark for correct average (using their values) | 6  **OR**  2, 3, 5, 1, 4, 12, 15  42  42 ÷ 7 = 6 |

**Mark Scheme – Task 3**

|  |  |  |  |
| --- | --- | --- | --- |
| 3a | 2 | 2 for correct answer  **OR**  1 for correct calculation  1 for 24-hour clock format (using their values)  **oa**  1 for correct calculation  1 for 24-hour clock format (using their values) | 16:25  **OR**  17:00 – 00:35  16:25  **oa**  5:00 – 0:35 = 4:25pm  16:25 |
| 3b | 2 | 2 for correct answer with suitable reason and calculation  **OR**  1 for correct calculation  1 for correct assumption based on their calculation as long as their calculation is a valid time | Yes because they arrive at 16:20 which is 5 minutes before latest arrival time  **OR**  14:50 + 1:30 = 16:20  Correct assumption with reasoning |
| 3c | 1 | 1 for suitable check (using their values in 3b as long as their values are valid times) | 16:20 – 1:30 = 14:50 |
| 3d | 3 | 3 for correct answer  **OR**  1 changing time into hrs  1 for correct substitution  1 for correct calculation  **oa**  1 for changing time into minutes  1 for correct substitution  1 for correct calculation | 68 km/h  **OR**  1.5 hr  102 ÷ 1.5  68  **oa**  90mins  102 ÷ 90  1.133 km per min = 68 km/hr |
| 3e | 5 | 5 for correctly completed table  **OR**  2 for correct values in rows for collar, lead, dog bowls, dog food and basket (deduct 1 for one wrong answer otherwise zero)  1 for correct total before discount (using their values)  1 for correct 10% discount (using their values)  1 for correct total spending (using their values) | |  |  |  |  | | --- | --- | --- | --- | | Item | Price per item (£) | Number of items bought | Cost (£) | | Puppy | 450.00 | 1 | 450.00 | | Collar | 2.10 | 1 | **2.10** | | Lead | 5.50 | **1** | 5.50 | | Dog bowls | 3.25 | 2 | **6.50** | | Dog food | 7.99 | 3 | **23.97** | | Basket | **16.65** | 1 | 16.65 | | ***Total before discount*** | | | **504.72** | | ***Less 10% discount*** | | | **50.47** | | **Total spending** | | | **454.25** | |
| 3f | 2 | 2 for correct answer  **OR**  1 for correctly identifying highest and lowest  1 for correct calculation of range (using their values) | 30 good reviews  **OR**  55 and 25  55-25=30 |