

## **GENERAL EDUCATION AND TRAINING CERTIFICATE**

## **NQF LEVEL 1**

## **AET LEVEL 4 SITE-BASED ASSESSMENT**

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| **LEARNING AREA** | **:** | **MATHEMATICS AND MATHEMATICAL SCIENCES** |
| **CODE** | **:** | **MMSC4** |
| **TOOL** | **:** | **INVESTIGATION** |
| **TIME** | **:** | **3 HOURS** |
| **MARKS** | **:** | **50** |

**This assessment tool consists of 3 pages.**

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| **INSTRUCTIONS AND INFORMATION FOR THE TEACHER.** |  |  |

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| 1. | This task is set on:   * US ID 7452 * US ID 7453 |  |  |

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| 2. | This investigation should be done in pairs. Each member should however write his/her own work. |  |  |

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| 3. | ACTIVITY1 and 2 must be marked using the memorandum provided. |  |  |

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| 4. | A class discussion may be conducted before or during completion of the task. |  |  |

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| 5. | Learners can complete their work at home. |  |  |

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| **ACTIVITY 1** |  |  |

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| 1.1 | 1.1.1 | The graph shows how much shampoo the hairdresser requires per customer.🗸🗸 |  | (2) |

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|  | 1.1.2 | Shampoo required = 30× (number of customers)🗸🗸 |  | (2) |

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|  | 1.1.3 | Shampoo used.🗸 Because the amount of shampoo used is calculated on the number of customers visiting the salon.🗸 |  | (2) |

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|  | 1.1.4 | Shampoo required = 30mℓ× (number of customers)  🗸  🗸  🗸  OR  [Any other values from horizontal axis can be used] |  | (6) |

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|  | 1.1.5 | more🗸 |  | (1) |

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|  | 1.1.6 | Direct proportion 🗸 |  | (1) |

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| 1.2 | 1.2.1 | Number of days = 750 mℓ🗸🗸 |  | (2) |

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|  | 1.2.2 | 2,5 days **🗸** |  | (1) |

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|  |  | One 750 mℓ bottle will serve 25.  bottles will serve 50 customers. 🗸🗸 |  | (2) |

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|  | 1.2.4 | Indirect proportion. The more the number of customers the lesser the number of days the 750 mℓ shampoo will last. |  | (2) |

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|  | 1.2.5 | 🗸  🗸  🗸  Accept any values which will satisfy the rule. |  | (6) |

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| 1.3 | It implies that more shampoo will be needed and that the 750 mℓ bottle of shampoo will not last long.🗸🗸🗸 |  | (3)  **[30]** |

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| **ACTIVITY 2**  **Mark this activity using the rubric on page 4**  **QUESTION 2.1** |  |  |

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| Example of the combinations   |  |  |  |  | | --- | --- | --- | --- | | **Perimeter (m)** | **Width (m)** | **Length (m)** | **Area (** | | 150 | 5 | 140 | 700 | | 150 | 7🗸 | 136🗸 | 952🗸🗸 | | 150 | 15🗸 | 120🗸 | 1800🗸🗸 | | 150 | 20🗸 | 110🗸 | 2200🗸🗸 | | 150 | 6🗸 | 138🗸 | 828🗸🗸 |  * Two values of width🗸🗸 * Two values of length🗸🗸 * Two values of area🗸🗸🗸🗸(Any values of relevant width and length) |  | (8) |

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| 2.2 | Trying more combinations including those in QUESTION 2.1  🗸  🗸  Therefore the maximum area is 2812,5🗸🗸 |  | (4) |

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| 2.3 | When the sizes of the length become closer to the sizes of the width the area becomes bigger.🗸🗸 |  | (2) |

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| 2.4 | Area = 🗸🗸 |  | (2) |

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| 2.5 | * For fresh vegetables🗸 * Saving money🗸 * Eating healthy food🗸 * Poverty alleviation🗸 * For business purposes (Any 4 × 1) |  | (4) **[20]** |

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| **TOTAL:** |  | **50** |