MATHEMATICAL LITERACY

# GRADE 10

**Assignment 1**

**2019**

**SCHOOL BASED ASSESSMENT TASK**

# TOPIC: Basic Skills

**MARKS: 50**

**WEIGHTED MARK: 10**

SUGGESTED TIME: 60 Minutes

# INSTRUCTIONS AND INFORMATION

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| 1. | This question paper consists of TWO questions. Answer ALL the questions. | | |
| 2. | Use the ANNEXURE to answer QUESTION 2 | | |
| 3. | Number the answers correctly according to the numbering system used in this question paper. | | |
| 4. | Start EACH question on a NEW page. | | |
| 5. | You may use an approved calculator (non-programmable and non-graphical), unless stated otherwise. | | |
| 6. | Show ALL calculations clearly. | | |
| 7. | Round off ALL final answers appropriately according to the context, unless stated otherwise. | | |
| 8. | Indicate units of measurement, where applicable. | | |
| 9. | Maps and diagrams are NOT necessarily drawn to scale, unless stated otherwise. | | |
| 10. | Write neatly and legibly. | | |
| **QUESTION 1** | |  |  |

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| 1.1 | Study the lotto information below and answer the questions that follow. |  |  |
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|  | 1.1.1 | Write the total number of winners in the correct South African number format. |  | (2) |

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|  | 1.1.2 | Write the Total Prize Pool’s number in words. |  | (2) |

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|  | 1.1.3 | Round the Draw Number to the nearest 5. |  | (2) |

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|  | 1.1.4 | Round the Total Prize Pool to the nearest 50 000. |  | (2) |

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|  | 1.1.5 | Calculate the total prize money that was paid out by the national Lottery for 4+Bonusball numbers matched. |  | (4) |

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|  | 1.1.6 | Give ONE reason why people play the National Lottery. |  | (2) |

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| 1.2 | Look at the receipts, collected by the Marufane family, then answer the questions that follow. |  |  |

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|  | 1.2.1 | Write the total car insurance to the total petrol as a ratio. |  | (2) |

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|  | 1.2.2 | Divide the total amount spend of fruit and veg in the ratio of 2:3. |  | (5) |

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|  | 1.2.3 | The Marufune family’s Rent will increase by 7,5%. Calculate the new rent amount, after the increase. |  | (3) |

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|  | 1.2.4 | Round ‘Pic & Pac’ total to the nearest R100. |  | (2) |

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|  | 1.2.5 | Decrease the “General motor vehicle cover” with 15%. |  | (3) |
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| **QUESTION 2** |  |  |

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| 2.1 | A petrol tanker arrived at John’s home to refill the storage tank at their farm.  A graph depicting how long it takes to empty the petrol tanker is shown:      **Emptying the tanker**  1600  1400  1200  1000  800  600  400  200  0  0  10  20  30  40  **Time (min)**  50  60  70  80 |  |  |

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|  | 2.1.1 | Is the above graph an example of direct or indirect proportion?  Give a reason for your answer. |  | (4) |

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|  | 2.1.2 | Determine the maximum volume of petrol in the tanker. |  | (2) |

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|  | 2.1.3 | Determine the volume of the petrol that was left in the tanker after 45 minutes. |  | (2) |

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|  | 2.1.4 | Describe the general trend of this graph. |  | (2) |

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| 2.2 | The relationship between John’s Dad’s petrol cost and people in the car when he travels to work in a car is shown below. He spends R50 when he travels alone. His father approached John for advice on saving on travel. John used the following table:   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **Number of people in car (n)** | **1** | **2** | **3** | **4** | **5** | | **Dad's petrol cost in Rand (C)** | **50** | **25** | **16.67** | **12.5** | **10** | |  |  |

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|  | 2.2.1 | Describe this relationship in words. |  | (2) |

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|  | 2.2.2 | Draw a graph on a suitable set of axes on the ANNEXURE |  | (5) |

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|  | 2.2.3 | The decision to include a 5th person is not advisable for his dad’s condition.  Give TWO reasons for your answer. |  | (4) |

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|  |  |  |  | **[21]** |

**ANNEXURE**

**QUESTION 2.2.2**

60

50

40

30

20

10

0

0

1

2

3

**Number of people in car**

4

5

6

