

## National 5 Lifeskills mathematics

### Non - Calculator

|    | Marking Scheme   | Evidence   |
|----|--|--|
| 1. | ANS :Elaine has more data <ul style="list-style-type: none"> <li>• Know how to calculate fraction</li> <li>• Know how to calculate fraction</li> <li>• Conclusion with comparison</li> </ul> | <ul style="list-style-type: none"> <li>• 0.57 or 0.62</li> <li>• 0.57 or 0.62</li> <li>• Elaine as <math>0.62 &gt; 0.57</math></li> </ul>  |
| 2. | ANS :34.40 euros <ul style="list-style-type: none"> <li>• Calculate euros at lowest</li> <li>• Calculate euros at highest</li> <li>• Comparison</li> </ul>                                   | <ul style="list-style-type: none"> <li>• <math>500 \times 1.1949 = 597.45</math></li> <li>• <math>500 \times 1.2637 = 631.85</math></li> <li>• <math>631.85 - 597.45</math></li> </ul> |
| 3. | ANS: Yes, $0.0625 < 0.083$ <ul style="list-style-type: none"> <li>• Calculate gradient</li> <li>• statement</li> </ul>   | <ul style="list-style-type: none"> <li>• <math>0.5 / 8 = 0.0625</math></li> <li>• Yes as <math>0.0625 &lt; 0.083</math></li> </ul>   |

### Calculator

| Question | Marking Scheme   | Evidence   |
|----------|--|--|
| 4.       | ANS: £117.50 <ul style="list-style-type: none"> <li>• Evaluate table</li> <li>• Know to calculate cost of miles</li> <li>• Know to calculate cost of additional miles</li> <li>• Calculate total expenses</li> </ul> | <ul style="list-style-type: none"> <li>• 0.29</li> <li>• <math>0.29 \times 250 (= 72.50)</math></li> <li>• <math>0.15 \times 300 (=45)</math></li> <li>• <math>72.50 + 45 = 117.50</math></li> </ul> |
| 5.       | ANS :5 hours <ul style="list-style-type: none"> <li>• Know how to calculate basic rate</li> <li>• Know to calculate overtime rate</li> <li>• Calculate hours of overtime</li> </ul>                                  | <ul style="list-style-type: none"> <li>• <math>296/40 = 7.40</math></li> <li>• <math>7.40 \times 1.5 = 11.10</math></li> <li>• <math>55.50/11.1 = 5</math></li> </ul>                                |
| 6.(a)    | ANS :20160 <ul style="list-style-type: none"> <li>• Know how to calculate mean</li> </ul>  | <ul style="list-style-type: none"> <li>• <math>(8900+ 12700+ 59200+ 10300+ 9700)/5 = 20160</math></li> </ul>   |
| (b)      | ANS : Median with explanation <ul style="list-style-type: none"> <li>• Decision</li> </ul>   | <ul style="list-style-type: none"> <li>• Median because it is closer to the majority of the values or because 59200 makes the mean higher.</li> </ul>  |
| 7. (a)   | ANS :It is cheapest per Litre <ul style="list-style-type: none"> <li>• Know to calculate cost per litre</li> <li>• Calculate cost per L of other 2</li> <li>• Comparison with justification</li> </ul>               | <ul style="list-style-type: none"> <li>• 1.995, 1.66 or 1.62</li> <li>• Other 2 values</li> <li>• Coverlite is the</li> </ul>  |

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|     |   |  |
|-----|---|--|
|     |   | cheapest per Litre   |
| (b) | <p>ANS : Tuffcote is cheapest per <math>m^2</math></p> <ul style="list-style-type: none"> <li>• Know to calculate cost per <math>m^2</math></li> <li>• Calculate other values</li> <li>• Conclusion with justification</li> </ul> | <ul style="list-style-type: none"> <li>• 0.12468, 0.118 or 0.12461</li> <li>• Other 2 values</li> <li>• Tuffcote is the cheapest per <math>m^2</math> so best value.</li> </ul>          |
| 8.  | <p>ANS: No, <math>77.5\text{kg} &gt; 73\text{kg}</math></p> <ul style="list-style-type: none"> <li>• Know to decrease by 6%</li> <li>• Calculate weight after decrease</li> <li>• Conclusion with justification</li> </ul>        | <ul style="list-style-type: none"> <li>• 0.94</li> <li>• <math>95 \times (0.94)^5 = 77.5</math></li> <li>• No as he will be over his target weight, <math>77.5 &gt; 73</math></li> </ul> |