

GCSE MATHEMATICS  
MARK SCHEME – Specimen Paper – Handling Data (Unit 1) Higher

| Questions     | Working  | Answer             | Mark     | Notes   |
|---------------|--|--------------------|----------|---|
| <b>A1</b>     | $(1 \times 5) + (2 \times 9) + (3 \times 14) + (4 \times 11) + (5 \times 5) + (6 \times 6)$<br>$5 + 18 + 42 + 44 + 25 + 36 = 170$<br>$170 \div 50 = 3.4$ | 3.4                | <b>3</b> | M1 for $1 \times 5, 2 \times 9$ etc (min 3 attempts shown)<br>M1 (dep) for an attempt to add A1 cao   |
| <b>A2 (a)</b> |  | Reason             | <b>1</b> | B1 Pass at $0.6 > \text{Fail at } 0.4$  |
| <b>(b)</b>    |  | Question           | <b>2</b> | B1 Improved question  |
|               |  | Response           |          | B1 Response boxes   |
| <b>A3 (a)</b> | 182, 178, 180, 184   | 182,178<br>180,184 | <b>2</b> | M1 for one mean eg $(147 + 161 + 238) \div 3$<br>or sight of one 3-point average<br>A1 cao            |
| <b>(b)</b>    |  | 28                 | <b>2</b> | B1 cao  |
|               |  | 31                 |          | B1 cao  |
| <b>(c)</b>    |  | 11 cm              | <b>2</b> | B1 for 4 <sup>th</sup> column 11 cm high  |
|               |  | 1.5 cm             |          | B1 for 5 <sup>th</sup> column 1.5 cm high   |
| <b>A4</b>     | $\frac{8}{25} \times \frac{7}{24}$   | $\frac{7}{75}$     | <b>3</b> | M1 for $\frac{8}{25} \times \frac{7}{24}$<br>A1 for $\frac{7}{75}$<br>A1 $\frac{7}{75}$ oe (eg 0.093) |

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| <b>B1</b><br>(a)<br>(b)      |  | £5000<br>3        | <b>1</b><br><b>2</b><br><b>2</b> | B1 for three points plotted correctly<br>B2 ± 200<br>B2 ± 0.2<br>(B1 for a correct line of best fit)  |
| <b>B2</b><br>(i)<br><br>(ii) | <pre> 0   6 8 8 9 1   2 2 4 5 5 6 6 8 8 2   1 1 1 2 5 3   2 4 </pre> | Diagram           | <b>2</b><br><br><b>2</b>         | B2 for fully correct<br>(B1 for 2 errors in leaves or omitted key or unordered)   |
| <b>B3</b><br>(a)<br><br>(b)  |  | 16<br><br>Boxplot | <b>2</b><br><br><b>2</b>         | B1 for putting in order<br>A1 cao<br>B2 if fully correct<br>(B1 for median or range end points or interquartile range correct)<br>B1 for comment comparing median<br>B1 for comment comparing IQR |
| <b>B4</b>                    | Y9 boys in sample: $\frac{76}{800} \times 50$                        | 5                 | <b>2</b>                         | M1 for $\frac{76}{800} \times 50$ or 4.75 seen<br>A1 for 5  |