| **Paper 1MA1: 2F** | | |  |  | |
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| **Question** | | **Working** | **Answer** | **Notes** | |
| 1 |  |  | 3 tenths or | B1 |  |
| 2 |  |  | 9 | B1 |  |
| 3 |  |  |  | B1 |  |
| 4 | a  b  c |  | 6*f*  16*mn*  2*t*2 | B1  B1  B1 | cao |
| 5 | a  b | 27 × 18 = 486 | 5.14  "less change" | M1  A1  C1 | for 1000 – "27 × 18"  cao  for "less change" oe |
| 6 |  | 458 – 72 = 386  386 ÷ 2 = 193 | 265 | P1  A1 | for start to the process, eg. 458 – 72 or 458 ÷ 2 (= 229) and 72 ÷ 2 (= 36) |
|  |  |  |  |  |  |
| 7 |  |  | 63 | M1  A1 | for a method to find percentage of a quantity |
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| **Question** | | **Working** | **Answer** | **Notes** | |
| 8 |  |  |  | M1  A1 | for a method to convert each to a form that can be easily used for comparing, eg.  for correct order |
| 9 |  |  | 62.5 | M1 | for 12.5 squares or use of 1 sq = 5% |
|  |  |  |  | M1 | for 12.5÷20×100 oe |
|  |  |  |  | A1 | or 62½ |
| 10 | i  ii |  |  | C1  C1 | for correct criticism of use of mean, eg. "there is no dress size of 15.3"  Mode (=14) is most useful since it shows the most popular size |
| 11 |  |  | for 'no' with supporting evidence | P1  P1  C1 | for correct process to find price in Week 1,  eg. 65 × 0.8 (= 52)  for process to find the price in week 2,  eg. "52" – 10 (= 42)  for 'no' with supporting evidence |
| 12 |  |  | 12 | P1  A1 | for complete process including unit conversion, eg. 3.6 × 100 ÷ 30  cao |

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| 13 | a  b |  | 12| 3 5 9  13| 0 3 3 5 7 8  14| 7 7 8 9  15| 0 1  Key: 12|3 represents 123  oe | C1  C1  C1  M1  A1 | for an unordered diagram with just one error or for an ordered diagram with no more than two errors  for a fully correct diagram  for a correct key (units may be omitted but must be correct if included)  for correct interpretation from their diagram (or from original information) of the number (6) out of 15 over 140  for oe or ft their diagram |
| 14 | a  b  c |  | (0, –1)  × marked at (3, 0)  (–0.5, 0.5) | B1  B1  B1 |  |
| 15 | a  b |  | 168  14.85 | B1  M1  A1 | for 12.25 or 2.6 |

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| 16 | a  b |  | 1.5 oe  –3 | M1  A1  M1 | for rearranging, eg 11 – 5 = 4*c*  for a first step of either dividing both sides by 5, eg. or for expanding the bracket, eg. 5×*e* + 5×7 = 20 |
|  | c |  | *m*6 | A1  B1 | cao |
| 17 |  |  | 56o with reasons | M1  M1  C1  C1 | for a method leading to the evaluation of another angle, eg. angle *A* =180 – 90 – 22 (=68)  for correctly using the isosceles property in identifying two equal angles, eg (180 – "68")÷2 (= 56)  for at least one correct reason given linked to clear working.  For all correct reasons included  Reasons as appropriate from:  sum of angles in a triangle = 180o  base angles of isosceles triangle are equal  sum of angles on a straight line = 180o  sum of angles in a quadrilateral = 360o |

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| 18 |  |  | butter = 1080  flour = 1575  sugar = 450  mincemeat = 1260 | M1  M1  A1 | for correct use of a correct scale factor, 72 ÷ 16 (= 4.5) on at least one ingredient  for complete method applied to all ingredients  correct amounts correctly converted to kg |
| 19 | a  b |  |  | C1  C1 | for a correct evaluation of the method shown by giving at least one correct error made, eg. "didn't multiply the 1 by 5"  for a correct evaluation of the method shown by giving at least one correct error made, eg. "can't split a mixed number" or "should convert to improper (oe) fractions first" |
| 20 |  |  |  | M1 | for 3*t* = *w* – 11 or |
|  |  |  |  | A1 | for oe |
| 21 |  |  | Jardins of Paris | P1  P1  C1 | correct process to convert one price to another currecncy, eg 1980 ÷ 1.34  for a complete process leading to 3 prices in the same currency  for 3 correct and consistent results and a correct comparison made. |

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| 22 |  |  | Mean of 96 or net deviation of 0  so target met | M1  M1  C1 | for correct interpretation of the graph, with at least one correct reading or a line drawn through 96 with at least one correct deviation  complete method to find mean of six months  sales, eg. (110+84+78+94+90+120)÷6 (= 96) or the mean of six deviations,  eg. (14–12–16–2–6+24)÷6 (= 0)  for a correct answer of 96 or 0 with correct conclusion |
| 23 | a  b |  | 160 < *h* ≤ 170  1. Points should be plotted at mid-interval values  2. The polygon should not be closed | B1  C1  C1 | for identifying the correct class interval  for a correct error identified  for a correct error identified |

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| 24 | a |  | graph | M1  C1  C1 | for method to start to find distance cycled in 36 mins, eg. line drawn of correct gradient or  for correct graph from 9.00 am to 9.36 am  for graph drawn from "(9.36, 9)" to  (10.45, "9" + 8) |
|  | b |  | 4.5 | M1  A1 | for 18 × 0.25  cao |
| 25 |  |  | 8112 | M1  A1 | for complete method, eg. 7500 × 1.042  cao |
| 26 |  |  | No with supporting evidence | P1  P1  C1 | for the start of a correct process, eg. two of *x*, 2*x* and 2*x*+7 oe or a fully correct trial, eg. 5 + 10 + 17 = 32  for setting up an equation in *x.* eg. *x* + 2*x* + 2*x* + 7 = 57 or a correct trial totalling 57, eg. 10 + 20 + 27 = 57  (dep on P2) for at least one correct result and for a correct deduction from their answers found, eg. Chris has 20 so it is impossible for all to have 20 since 60 marbles would be needed. |
| 27 |  |  | 66.9 | P1  P1  P1  A1 | for process to find the area of one shape, eg. 19×16 (= 304) or (= 201.06...)  for process to find the shaded area, eg. "304" – "201.06" ÷2 (= 203.46...)  for a complete process to find required percentage, eg.  for answer in range 66 to 68 |
| 28 |  |  | 43.5 | P1  P1  P1  P1  A1 | For process to establish a right-angled triangle with two sides of 5 cm and 9 – 7 = 2 cm  For correct application of Pythagoras,  eg. 52 +"2"2  for a complete process to find perimeter, eg. 9 + 7 + 5 + "5.39" (= 26.385...)  for process to find area of square,  eg. (26.385...)2  for answer in range 43.5 to 43.6 |