

| Paper 1MA1: 2F | | | |
|----------------|-------------|-------------------------------|----------------------------------------------------------------------------------|
| Question | Working | Answer | Notes |
| 1 | | 7000 | B1 cao |
| 2 | | -5°C, -2°C, 3°C, 7°C, 10°C | B1 correct order |
| 3 | | $\frac{3}{40}$ | M1 $\frac{75}{1000}$ oe A1 |
| 4 | | 625 | B1 cao |
| 5 | 720 000 ÷ 3 | 240 000 | P1 for division by 3 A1 cao |
| 6 (a) | | 1 hr 4 mins | B1 cao |
| (b) | | No + explanation | B1 for no + explanation, eg the 0717 from Swindon takes less than one hour |

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| 7 | $2 \times \pounds 1.10 (= \pounds 2.20)$ $3 \times \pounds 0.95 (= \pounds 2.85)$ $5 \times \pounds 2.15 (= \pounds 10.75)$ $\pounds 2.20 + \pounds 2.85 + \pounds 10.75$ $\pounds 15.80 \div 5$ | 3.16 | P1 for process of working out total cost of coffees or teas or sandwiches in pence or pounds P1 for process of finding total cost using consistent units P1 for process of dividing by 5 A1 cao |
| 8 | | Banana 20 explanation | B1 cao B1 cao C2 for full explanation, eg table shows exactly $\frac{1}{2}$; pie chart shows less than $\frac{1}{2}$ as angle is less than 180° (C1 for partial explanation or reference to just pie chart or just table) |
| 9 | | No + explanation | C1 No, with explanation, eg the angle will still be 25° |
| 10 | | 6.4 – 6.6 | B1 for 6.4 – 6.6 |
| (a) | | 9.8 | B1 for 9.75 – 9.85 |
| (b) | | 5, 9 | B1 cao |
| (c) | | | |

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| 11 (a) | | rule stated | C1 for rule stated, eg number doubles |
| (b) | | 32 | B1 cao |
| (c) | | 22, 29 | B1 cao |
| 12 | | 0.8 | P1 for process to find amount of soup put in bowls, eg 24×0.3 or amount of soup when 8 pints are shared between 24 bowls, eg $24 \div 8$ P1 for complete process to find amount of soup left over A1 |
| 13 | | 46 | M1 for process to find value after 1 year M1 for process to find value after 4 years A1 cao |
| 14 | | 3p | M1 for method to find gradient of line A1 for 3p oe |

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| 15 (a) | | 10 | P1 for process to find number of people that Ellie can make mousse for using the sugar available P1 for process to find number of people that Ellie can make mousse for using the chocolate available A1 for correct answer with supportive working |
| (b) | | correct explanation | C1 for “can only make mousse for 6 people” oe |
| 16 | | 8 | B1 cao |
| 17 (a) | | $4x + 6y$ | M1 for $4x$ or $6y$ A1 for $4x + 6y$ or $2(2x + 3y)$ |
| (b) | | $5(2x - 3)$ | B1 cao |
| (c) | | 4 | M1 for method to isolate terms in p on one side and constants on the other side A1 cao |
| 18 | | 3 : 4 | M1 for $32 - 8 (=24)$ M1 (dep) for “24” : 32 A1 cao |

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| 19 (a) | | Table complete | B1 cao |
| (bi) | | $\frac{1}{10}$ | B1 for $\frac{1}{10}$ oe or ft from table |
| (bii) | | $\frac{7}{10}$ | B1 for $\frac{7}{10}$ oe or ft from table |
| 20 | | 1.52 | M1 A1 for $20 \times 4.55 \div 60$ for 1.52 or 1.516(...) |
| 21 | | 8 | M1 A1 for finding the HCF of any two of the three numbers or for 2^5 and 3×2^4 and $2^3 \times 3^2$ cao |
| 22 | | Translation by $\begin{pmatrix} 4 \\ -3 \end{pmatrix}$ | B1 for translation B1 $\begin{pmatrix} 4 \\ -3 \end{pmatrix}$ |

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| 23 (a) | | Trend described | C1 for "percentage of people who use the shop decreases" oe |
| (bi) | | 13 - 17 | P1 for process to draw trend line on graph A1 for 13 - 17 |
| (bii) | | No + reason | C1 for comment, eg "no, because 2020 is beyond the time period covered by the given data" |
| 24 (a) | | $13y - 1$ | M1 for expansion of one bracket A1 for full simplification |
| (b) | | $35u^3w^7$ | B1 for 2 of 35, u^3 and w^7 correct B1 cao |
| 25 | | 105 | P1 for process to find the exterior angle or interior angle of a hexagon or octagon P1 for process to find the both exterior angles or both interior angles A1 for 105 from correct working |

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| 26 (a)(i) | | 10, 12, 14, 15, 16, 18 | B1 cao |
| (ii) | | 12, 18 | B1 cao |
| (b) | | $7\frac{7}{10}$ | M1 for 7 or indicating correct region or for 10, 14, 16, 11, 13, 17, 19 listed |
| | | | A1 for $\frac{7}{10}$ oe |
| 27 | $6 : 5 = 12 : 10$ $2 : 1 = 10 : 5$ $C : S : P = 12 : 10 : 5$ $\frac{10}{27} \times 189$ | 70 | P1 for strategy to start to solve the problem eg 12 : 10 and 10 : 5 |
| | | | P1 for process to solve the problem eg $\frac{10}{27} \times 189$ |
| | | | A1 cao |
| 28 | $\frac{1}{4} \times \pi \times 4.8^2$ $\frac{1}{2} \times 4.8 \times 4.8$ $\frac{1}{4} \times \pi \times 4.8^2 - \frac{1}{2} \times 4.8 \times 4.8$ | 6.58 | B1 for use of formula for area of a circle |
| | | | P1 for complete process to find area of shaded region |
| | | | A1 for 6.56 – 6.58 |

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| 29 | $\angle ADB = 72^\circ$ (base angles of isosceles triangle ABD) $\angle BAD = 180^\circ - 2 \times 72^\circ$ (angle sum of a triangle is 180°) $\angle BCA = 36^\circ$ (base angles of isosceles triangle ABC) $\angle BDC = 180^\circ - 72^\circ$ (angles on a straight line sum to 180°) $\angle DBC = 180^\circ - 36^\circ - 108^\circ$ (angle sum of a triangle is 180°) | Result shown | M1 for $\angle ADB = 72^\circ$ and $\angle BAD = 180^\circ - 2 \times 72^\circ$ M1 for $\angle BCA = "36^\circ"$ M1 for $\angle BDC = 180^\circ - 72^\circ$ C1 for complete chain of reasoning to find angle $DBC = 36^\circ$ and one correct reason C1 C1 dependent on all previous marks for correct deduction and full reasons. |