

Paper 1MA1: 2F			
Question	Working	Answer	Notes
1		3 tenths or $\frac{3}{10}$	B1
2		9	B1
3		$\frac{21}{100}$	B1
4 a b c		$6f$ $16mn$ $2t^2$	B1 B1 B1   cao
5 a  b	$27 \times 18 = 486$	5.14  "less change"	M1   for 1000 – "27 × 18" A1   cao C1   for "less change" oe
6	$458 - 72 = 386$ $386 \div 2 = 193$	265	P1   for start to the process, eg. $458 - 72$ or $458 \div 2$ A1   (= 229) and $72 \div 2$ (= 36)
7		63	M1   for a method to find percentage of a quantity A1

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8		$\frac{5}{12}, \frac{1}{2}, \frac{17}{24}, \frac{3}{4}$	M1 for a method to convert each to a form that can be easily used for comparing, eg. $\frac{5}{12} = \frac{10}{24}$ A1 for correct order
9		62.5	M1 for 12.5 squares or use of 1 sq = 5%  M1 for $12.5 \div 20 \times 100$ oe A1 or $62\frac{1}{2}$
10 i  ii			C1 for correct criticism of use of mean, eg. "there is no dress size of 15.3" C1 Mode (=14) is most useful since it shows the most popular size
11		for 'no' with supporting evidence	P1 for correct process to find price in Week 1, eg. $65 \times 0.8 (= 52)$ P1 for process to find the price in week 2, eg. $"52" - 10 (= 42)$ C1 for 'no' with supporting evidence
12		12	P1 for complete process including unit conversion, eg. $3.6 \times 100 \div 30$ A1 cao

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

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

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18		butter = 1080 flour = 1575 sugar = 450 mincemeat = 1260	M1 for correct use of a correct scale factor, $72 \div 16$ (= 4.5) on at least one ingredient M1 for complete method applied to all ingredients A1 correct amounts correctly converted to kg
19 a			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"
b			C1 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		$t = \frac{w - 11}{3}$	M1 for $3t = w - 11$ or $\frac{w}{3} = \frac{3t}{3} + \frac{11}{3}$ A1 for $t = \frac{w-11}{3}$ oe
21		Jardins of Paris	P1 correct process to convert one price to another currency, eg $1980 \div 1.34$ P1 for a complete process leading to 3 prices in the same currency C1 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 for correct interpretation of the graph, with at least one correct reading or a line drawn through 96 with at least one correct deviation M1 complete method to find mean of six months sales, eg. $(110+84+78+94+90+120) \div 6 (= 96)$ or the mean of six deviations, C1 eg. $(14-12-16-2-6+24) \div 6 (= 0)$ for a correct answer of 96 or 0 with correct conclusion
23 a		$160 < h \leq 170$	B1 for identifying the correct class interval
b		1. Points should be plotted at mid-interval values 2. The polygon should not be closed	C1 for a correct error identified C1 for a correct error identified

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24 a		graph	M1 for method to start to find distance cycled in 36 mins, eg. line drawn of correct gradient or $15 \times \frac{36}{60}$ C1 for correct graph from 9.00 am to 9.36 am C1 for graph drawn from "(9.36, 9)" to (10.45, "9" + 8)
b		4.5	M1 for $18 \times 0.25$ A1 cao
25		8112	M1 for complete method, eg. $7500 \times 1.04^2$ A1 cao
26		No with supporting evidence	P1 for the start of a correct process, eg. two of $x$ , $2x$ and $2x+7$ oe or a fully correct trial, eg. $5 + 10 + 17 = 32$ P1 for setting up an equation in $x$ . eg. $x + 2x + 2x + 7 = 57$ or a correct trial totalling 57, eg. $10 + 20 + 27 = 57$ C1 (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.

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27		66.9	<p>P1 for process to find the area of one shape, eg. <math>19 \times 16 (= 304)</math> or <math>\pi \times 8^2 (= 201.06\dots)</math></p> <p>P1 for process to find the shaded area, eg. "304" – "201.06" <math>\div 2 (= 203.46\dots)</math></p> <p>P1 for a complete process to find required percentage, eg. <math>\frac{"203.46"}{304} \times 100</math></p> <p>A1 for answer in range 66 to 68</p>
28		43.5	<p>P1 For process to establish a right-angled triangle with two sides of 5 cm and <math>9 - 7 = 2</math> cm</p> <p>P1 For correct application of Pythagoras, eg. <math>5^2 + "2" = 29</math></p> <p>P1 for a complete process to find perimeter, eg. <math>9 + 7 + 5 + "5.39" (= 26.385\dots)</math></p> <p>P1 for process to find area of square, eg. <math>(26.385\dots \div 4)^2</math></p> <p>A1 for answer in range 43.5 to 43.6</p>