

Paper 1MA1: 2F			
Question	Working	Answer	Notes
1		6.66	B1 cao
2		0.4375	B1 cao
3		27 or 64	B1 cao
4		7.3225	M1 for 5.5225 or 1.8 A1 cao
5		$\frac{2}{3}$	B1 oe
6		eg 1, 2, 18	P1 P1 A1 Starts process eg. Lists at least 2 multiples from 9, 18, 27, 36, 45 or lists at least 2 factors from 1, 2, 4, 5, 8, 10, 20, 40 Continues process eg. gives a set of numbers whose sum is greater than 20 but less than 30 but numbers may not all be appropriate factors/multiples Gives 3 numbers that meet all the criteria

Paper 1MA1: 2F		Working	Answer	Notes
7			$\frac{53}{64}$	P1 for interpreting information e.g. recognising that the shaded area = $3 \left(\frac{1}{4} \times \frac{1}{4} \right) + \left(\frac{1}{4} \times \frac{1}{4} \times \frac{1}{4} \right)$ or adding in lines to diagram to show 64ths A1 cao
8				C1 Any one correct statement eg. No key, y axis label, 4 missing on y axis C1 Any 2 nd correct statement C1 Any 3 rd correct statement
9			13	M1 Puts numbers in order or clear attempt to find 5 th number or $(9 + 1)/2$ or selects 11 A1
10	(a)		$p + c$	B1
	(b)		$\frac{14}{3}$	M1 adds 5 to both sides of equation A1 oe
11	(a)		eg. $2 \times 5 = 10$	B1 example given
	(b)		explanation	P1 two prime numbers identified C1 conclusion which also shows at least one calculation with prime numbers or identifies one of the prime numbers as 2.

Paper 1MA1: 2F			
Question	Working	Answer	Notes
12 (a)		graph	C1 introduce a scale for the y axis C1 plots at least 2 points correctly C1 fully correct and complete graph
(b)		15 miles (supported)	M1 reads off graph eg 20 km = 12-13 miles or 15 miles = 24 km or uses table C1 states 15 miles (24 km) with appropriate evidence
13		shown	B1 $ABC = 80$ M1 $180 - 80^\circ - 50^\circ$ A1 $ACB = 50$ C1 statement that since $ACB = CAB = 50^\circ$ with reasons eg <u>Vertically opposite angles are equal</u> , <u>Angles in a triangle add up to 180°</u> , The <u>exterior angle of a triangle is equal to the sum of the interior opposite angles</u> ; <u>Base angles of an isosceles triangle are equal</u> .
14		13.9	P1 finds the volume of a cuboid eg $50 \times 40 \times 60 (=120000)$ P1 finds 35% of the oil from the cuboid eg 120000×0.35 oe $(=42000)$ P1 removes 35% of oil from cuboid eg $120000 - 42000 (=78000)$ P1 division to find missing side length eg $78000 \div (80 \times 70)$ or $13.928\dots$ A1 for answer to an appropriate degree of accuracy eg (13.9 or 14 or 10)

Paper 1MA1: 2F			Notes
Question	Working	Answer	
15		22.5	M1 interpret information eg use the scale A1
16		12	M1 Starts to list factors of writes at least one number in terms of prime factors or identifies a common factor other than 1 A1 cao
17	<p>£ per kg: $1.89 \div 2 = 0.945$ (94.5); $4.30 \div 5 = 0.86$ (86); $8.46 \div 9 = 0.94$ (94)</p> <p>kg per £: $2 \div 1.89 = 1.058(2\dots)$; $5 \div 4.30 = 1.162(79\dots)$; $9 \div 8.46 = 1.0638(297\dots)$</p> <p>Price per 90 kg: $1.89 \times 45 = 85.05$; $4.30 \times 18 = 77.4(0)$; $8.46 \times 10 = 84.6(0)$</p>	5 kg (supported)	P1 for a process (for at least two boxes) of division of price by quantity or division of quantity by price or a complete method to find price of same quantity or to find quantity of same price P1 for a complete process to give values that can be used for comparison of all 3 boxes C1 for 5 kg and correct values that can be used for comparison for all 3 boxes and a comparison of their values
18		11	M1 process of substitution demonstrated eg $5 \times 3 + 2 \times -2$ A1 cao

Paper 1MA1: 2F		Working	Answer	Notes
19			720	P1 attempt to find the maximum biscuits for one of the ingredients e.g. $5000 \div 15 (=33.3..)$ or $2500 \div 75 (=33.3..)$ or $3000 \div 100 (=30)$ or $320 \div 10 (=32)$ P1 for identifying butter as the limiting factor or $30 \times 24 (=720)$ seen A1
20	(a)		$3(f+3)$	B1 cao
	(b)		$(x-5)(x+3)$	M1 for $(x \pm 5)(x \pm 3)$ A1 cao
21			$p=qr-sr$	M1 for multiplying all 3 terms by r or isolating p/r term A1 oe
22	(a)		90	P1 for the process of finding an area eg $6 \times 11 (=66)$ P1 (dep on area calculation) for the process of working out the number of tins eg " 66 " $\div 12 (=5.5$ or 6 tins)
	(b)		reason	P1 for the process of working out the cost eg " 6 " tins \times $\pounds 15$ A1 cao C1 she might need to buy more tins

Paper 1MA1: 2F		Working	Answer	Notes
23			96	<p>P1 a strategy to start to solve the problem eg $18 \div (7 - 4) (=6)$</p> <p>P1 for completing the process of solution eg “6” $\times (4 + 5 + 7)$</p> <p>A1 cao</p>
24			20.9	<p>M1 correct recall of appropriate formula eg $\sin x = \frac{5}{14}$</p> <p>A1 for 20.9(248...)</p>
25	(a)		$4n+2$	<p>M1 start to deduce nth term from information given eg $4n+k$ where $k \neq 2$</p> <p>A1 cao</p>
	(b)		No (supported)	<p>M1 start to method that could lead to a deduction eg uses inverse operations</p> <p>C1 for a convincing argument eg 34 is 107 so NO; $(108-5) \div 3$ is not an integer</p>
26			<p>conclusion</p> <p>(supported)</p>	<p>P1 $30 \div 70 (=0.428)$ $26 \div 60 (=0.4333...)$ $30 \div 26 (=1.153...)$</p> <p>P1 $60 \times "0.428..."$ $70 \times "0.4333..."$ $60 \times "1.153..."$</p> <p>C1 for conclusion linked to 25.7 mins, 30.3 miles or 69.2 mph</p>

Paper 1MA1: 2F		Working	Answer	Notes
Question				
27	(a)		$22 \leq f < 24$	B1
	(b)		21.9	M1 M1 A1
				$x \times f$ using midpoints (dep on previous mark) " $x \times f$ " $\div 40$ accept 22 if working seen
28			9.54	P1 P1 P1 A1
				$10^2 - 5^2 (=75)$ "75" + $4^2 (=91)$ $\sqrt{(10^2 - 5^2 + 4^2)}$ $9.53 - 9.54$
29			0.06	M1 A1
				for 0.2 and 0.3 cao