Paper 1MA1: 1F				
Question	**Working**	**Answer**	**Mark**	**Notes**
19 **Q1**		180, 210, 375, 3	M1 M1 A1	for $\frac{24}{16}$ **or** 1.5 **or** $\frac{16}{24}$ oe **or** 0.5 of any figure in the recipe calculated **or** amount of any ingredient for 1 flapjack or 3 (tablespoons) for method to scale at least one ingredient in grams eg 120 × 1.5 **or** 140 × 1.5 **or** 250 × 1.5 for all quantities correct

Paper: 1MA1/1F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
15 (a) **Q2** (b)	420 explanation	P1 P1 A1 C1	starts process, eg 300 ÷ 5 (= 60) **or** 200 ÷ 2 (= 100) **OR** builds up ratio to at least 300 ml orange juice with one error complete process, eg "60" × 5 + "60" × 2 or 300 : 120 cao explains that it will have no effect with reason, eg because he only needs 120 m*l* of lemonade because he has no more orange juice to use	May be seen as "60" × 7 "60" must come from correct method

Paper: 1MA1/2F					
Question		**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
17 **Q3**		90	P1	for a process to find the number of batches for at least 2 ingredients, eg 900 ÷ 225 (= 4) **or** 1000 ÷ 110 (= 9.09..) **or** 1000 ÷ 275 (= 3.6……) **or** 225 ÷ 75 (= 3) **OR** A full method to find the maximum number of biscuits for 1 ingredient eg 900 ÷ 225 × 30 **OR** Amount required for 1 biscuit for at least 2 ingredients eg 225 ÷ 30 (= 7.5) **or** 110 ÷ 30 (= 3.6..) **or** 275 ÷ 30 (= 9.1..) **or** 75 ÷ 30 (= 2.5) **OR** Amount required for 3 batches for at least 2 ingredients eg 225 × 3 (= 675) **or** 110 × 3 (= 330) **or** 275 × 3 (=825) **or** 75 × 3 (= 225)	
			P1	(dep P1) for a complete process to find the maximum number of biscuits after considering at least 3 different ingredients eg "3" × 30	They must use their smallest multiplier after considering at least 3 different ingredients
			A1	(dep P2) cao from fully correct working	90 without working award no marks

Paper: 1MA1/2F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
19 **Q4**	40	P1 P1 A1	for a process to find the maximum number of batches for one ingredient, eg 500 ÷ 175 (= 2.85...) **or** 300 ÷ 75 (= 4) **or** 625 ÷ 250 (= 2.5) **OR** for a process to find the amount of one ingredient for 1 biscuit, eg 175 ÷ 16 (= 10.9375) **or** 75 ÷ 16 (= 4.6875) **or** 250 ÷ 16 (= 15.625) **OR** for multiples of 175 : 75 : 250, eg 175 × 2 (= 350) **and** 75 × 2 (= 150) **and** 250 × 2 (= 500) (dep P1) identifies flour as the limiting factor **OR** for a process to find the maximum number of biscuits for one ingredient, eg butter: "2.85" × 16 **or** 500 ÷ "10.9.." oe (= 45.7...) sugar: "4" × 16 **or** 300 ÷ "4.6.." oe (= 64) flour: "2.5" × 16 **or** 625 ÷ "15.625" oe (= 40) cao SCB2 for answer of 32	Figures may be truncated or rounded

Paper: 1MA1/1F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
17 (a) **Q5**	42	P1	for a correct start to the process by finding the number of batches for one ingredient, eg 500 ÷ 125 (= 4) **or** 700 ÷ 200 (= 3.5 or 3) **or** 250 ÷ 50 (= 5) **OR** for a correct start to building up number of batches of **all** ingredients, eg. (24 biscuits or 2 batches =) 250 (butter), 400 (flour) and 100 (sugar) **OR** for a start to the process by finding the amount of one ingredient needed to make 1 biscuit, eg 125 ÷ 12 (= $10\frac{5}{12}$) **or** 200 ÷ 12 (= $16\frac{8}{12}$) **or** 50 ÷ 12 (= $4\frac{2}{12}$)	
		P1	for a correct process to find the number of batches for all 3 ingredients, eg 500 ÷ 125 (= 4) **and** 700 ÷ 200 (= 3.5 or 3) **and** 250 ÷ 50 (= 5) **OR** for a build-up process reaching a point where there is not enough of one ingredient, eg. (36 biscuits or 3 batches =) 375 (butter), 600 (flour) and 150 (sugar) **or** (48 biscuits or 4 batches =) 500 (butter), 800 (flour) and 200 (sugar) **OR** for a correct process to find the amount of each ingredient needed to make 1 biscuit, eg 125 ÷ 12 (= $10\frac{5}{12}$) **and** 200 ÷ 12 (= $16\frac{8}{12}$) **and** 50 ÷ 12 (= $4\frac{2}{12}$)	

Paper: 1MA1/1F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
		P1	(dep on P2) for a process to find the number of biscuits, eg "4" × 12 (= 48) **or** "3.5" × 12 (= 42) **or** "3" × 12 (= 36) **or** "5" × 12 (= 60) **OR** (dep on P2) for (700 – 600) ÷ 200 × 12 (= 6) or "3" × 12 (= 36) **OR** (dep on P2) for a process to find the number of biscuits, eg 500 ÷ "$10\frac{5}{12}$" (= 48) **or** 700 ÷ "$16\frac{8}{12}$" (= 42) **or** 250 ÷ "$4\frac{2}{12}$" (= 60)	
		A1	cao	
(b)	Explanation	C1	(dep on P3) for a correct explanation, ft (a) for the critical ingredient identified **Acceptable examples** No, since flour is the critical value No, since flour gives you the least number of batches No since she needs more flour to make more biscuits. **Not acceptable examples** Yes … No (no reason given) No, since we would need more of the other ingredients too	

Paper: 1MA1/3F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
20 **Q6**	100g butter 25g sugar 1 egg	P1 P1 P1 C1	for process to find the amount needed of one ingredient for 25 scones for process to find the amount needed for at least three ingredients for 25 scones **or** for process to find the correct amount more for at least two of butter, sugar, eggs for complete process to find amount more for each of butter, sugar, eggs for correct amounts more shown for butter, sugar, eggs	amount needed: 200g butter 875 flour 75 sugar 5 eggs Flour can be excluded, but no incorrect information about flour should be given.

Paper: 1MA1/1F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
18 **Q7**	100	M1 A1	M1 for a correct first step, eg 25÷10 (= 2.5) **or** 40 ÷ 10 (= 4) **or** 20 (scones) = 40 × 2 (= 80g) **or** 5 (scones) = 40 ÷ 2 (= 20g) cao	Multiplier may be seen as evidence of this mark

Paper: 1MA1/1F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
23 (a)	600	P1	for starting process to calculate amount of flour eg 60 ÷ 15 (= 4) **or** 3 × 50 (= 150)	4 implied by 200g of sugar
		P1	for complete process eg $\frac{60}{15}$ × "150"	
Q8		A1	cao	
(b)	2	P1	for process to calculate amount of butter eg $\frac{60}{15} \times 2 \times 50$ (= 400)	
			OR for process to calculate the number of packs of butter needed eg [butter] ÷ 250	[butter] must be clearly stated or calculated, may be seen in part (a)
		A1	cao	2 must not come from incorrect working

Paper: 1MA1/2F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
17 (a)	5	P1	for finding the number of oranges required eg 8 ÷ 2 × 30 (=120) oe **or** for finding the number of oranges left from use of at least 2 boxes eg 24 × 2 – 30 (=18) or 24 × 4 – 90 (=6) **or** finds the correct amount of juice possible from at least two boxes eg 24 + 24 is 2 litres or 24 + 24 + 24 is 4 litres	A build up method with no process shown must use fully correct figures
		P1	for a complete process eg "120" ÷ 24 (=5) oe **or** 30 + 30 + 30 + 30 (=120) **and** 24 + 24 + 24 + 24 + 24 (=120) **or** 24 × 2 − 30 = 18, 18 + 24 = 42, 42 – 30 = 12, 12 + 24 =36, 36 – 30=6, 6 + 24 = 30	May be seen as a mixture of repeated subtraction and addition
Q9		A1	cao with no arithmetic errors seen SCB1 for an answer of 10 supported by working	This mark cannot be awarded if the supporting work has an arithmetic error An answer only and no working is no marks
(b)	9 : 2	M1	for a partially simplified correct ratio eg 126 : 28 or any other equivalent ratio **or** 2 : 9	eg 630:140, 315:70, 63: 14 180:40, 90:20, 45:10, 4.5:1
		A1	cao	