Mark Scheme

Q1.

Question	Answer	Mark	Mark scheme	Additional guidance
	19.85	P1	for a start to the process eg 30 ÷ 6 (=5) **or** 30 ÷ 15 (=2) **or** 30 ÷ 10 (=3) **OR** 30 × 37 (=1110) **OR** 82 ÷ 6 (=13.6 to 13.7) **or** 45 ÷ 15 (=3) **or** 1.25 ÷ 10 (=0.125)	
		P1	for process to find cost of 30 pens **or** 30 pencils **or** 30 rulers eg "5" × 82 (= 410) **or** "2" × 45 (= 90) **or** "3" × 1.25 (= 3.75) **OR** "13.6.." × 30 (=409.8 to 410) **or** "3" × 30 (=90) **or** "0.125" × 30 (=3.75)	Work may be in pence or in pounds
		P1	for a process to find cost of 2 of 30 pens **or** 30 pencils **or** 30 rulers eg any 2 of "5" × 82 (= 410) , "2" × 45 (= 90) , "3" × 1.25 (= 3.75)	Intention to add not necessary eg 410, 3.75 is sufficient, or working leading to these figures Any two correct methods will imply P1P1P1
		P1	for adding at least 3 different costs (units may not be consistent) eg "410" + "90" + "3.75" **or** "410" + "90" + "11.10"	Correct working for 3 of pens, pencils, rulers and pencil cases with an intention to add, may be in a mixture of money units
		A1	cao	

(Q08 1MA1/2F, June 2018)

Q2.

Question	Working	Answer	Mark	Notes
		Shown	M1	for method started to find comparable amounts, eg 17 × 46 (=782) or 17 × 0.46 (=7.82) or 17 × 35 (=595) or 266 ÷ 35 (=7.6) or 26600 ÷ 35 (=760)
			M1	for complete method to find comparable figures eg 17 × 46 (=782) or 17 × 0.46 (=7.82) AND 266 ÷ 35 (=7.6) or 26600 ÷ 35 (=760) eg 17 × 46 × 35 (=27370) or 17 × 0.46 × 35 (=273.7)
			C1	Shows correct comparable figures eg 7.82 and 7.6(0), 782 and 760 OR 273.7(0)

(Q13 1MA1/2F, Nov 2017)

Q3.

Question	Answer	Mark	Mark scheme	Additional guidance
	1635	P1	for process to find length of time in car park eg 8.40 ÷ 0.024 (= 350) **or** 0.024 × 60 (= 1.44) **and** 8.40 ÷ "1.44" (= 5.833...)	
		P1	for process to add "350" minutes to 10 45 eg 10 45 + 60 + 60 + 60 + 60 + 60 + 50 **or** 10 45 + "5 hours 50 minutes" **OR** for 435	Do not accept incorrect interpretation of time, eg 5.83 = 5 hours 83 minutes
		A1	for 1635 **or** 435 pm	Accept 1635 pm

(**Q10 1MA1/2F, Nov 2019**)

Q4.

Question	Answer	Mark	Mark scheme	Additional guidance
	78	P1	for process to find the number of boxes, eg 200 ÷ 25 (=8) or to find the cost of each tile, eg 9.75 ÷ 25 (=0.39)	Could work in £ or in pence for P marks
		P1	for complete process, eg "8" × 9.75, "0.39" × 200	
		A1	cao	

(**Q08 1MA1/3F, Nov 2020**)

Q5.

Question	Answer	Mark	Mark scheme	Additional guidance
(a)	shop A from correct figures	P1	for start of process to find the number of packs needed from at least one shop, eg 30 ÷ 4 (= 7.5 or 8) **or** 30 ÷ 6 (= 5)	
		P1	for process to find cost of batteries from at least one shop, eg (30 ÷ 4) × 1.6 (= 12.8 or 12) **or** (30 ÷ 6) × 2.7 (= 13.5)	
		P1	for a complete process to find the cost of batteries from both shops using whole packs eg "8" × 1.6 (= 12.8) **and** "5" × 2.7 (= 13.5)	"8" must come from "7.5" rounded up
		C1	for shop A with both 12.8(0) and 13.5(0)	
(b)	No effect (supported)	C1	(ft) for "has no effect" with reason **Acceptable examples** No, since A is 12 and B is 13.5(0) No, since A is just 80(p) less and B is the same. No, since A is less and B has not changed. No, since A is 1.5(0) less No, since 40(p) is less than 45(p) No, as batteries in B are 5p more **Not acceptable examples** Yes .... There is no change (unsupported) No, since A is less (incomplete)	If figures are given as part of the answer they must be correct

(**Q15 1MA1/3F, Nov 2020**)

Q6.

Question	Answer	Mark	Mark scheme	Additional guidance
(a)	241.56	P1	for difference for 1 parcel eg 35.38 – 15.25 (= 20.13) **OR** for total cost for 12 parcels by either service eg 35.38 × 12 (= 424.56) **or** 15.25 × 12 (= 183)	
		P1	for a complete process eg "20.13" × 12 **or** "424.56" – "183"	
		A1	cao	
(b)	Explanation	C1	for explanation **Acceptable examples** both figures rounded down (refers to both figures) 20 is less than 21 and 15 is less than 15.25 **Not acceptable examples** both figures rounded (up); rounded down either 20 is less than 21 or 15 is less than 15.25 (refers to just one figure) the cost is 320.25 (more than 300); multiplying with bigger numbers	

(**Q11 1MA1/3F, June 2019**)

Q7.

Question	Answer	Mark	Mark scheme	Additional guidance
	Shown	M1	for a method to find the total cost for footballs, hockey sticks or cricket bats, eg 9.5 × 5 (= 47.5) **or** (6 ÷2) × 30 (= 90) **or** 23 × 2 (= 46) **OR** begins to work with budget, eg 200 – 5 (= 195)	Can be done with addition or subtraction, or combination
		M1	for a method to find the total cost for two of footballs, hockey sticks or cricket bats, eg two from 9.5 × 5 (= 47.5) **or** (6 ÷2) × 30 (= 90) **or** 23 × 2 (= 46) **OR** works with budget **and** total cost for one of footballs, hockey sticks or cricket bats, eg 200 – "47.5"	
		M1	for a complete method to find comparable figures, eg 9.5 × 5 + (6 ÷2) × 30 + 23 × 2 + 5 or "47.5" + "90" + "46" + 5 or 200 – (9.5 × 5 + (6 ÷2) × 30 + 23 × 2 + 5) or 200 – "188.5"	
		C1	shows correct figures for a conclusion eg (£)188.5(0) **or** (£)11.5(0)	Figures need not be supported by words but must not be contradicted.

(**Q08 1MA1/2F, Nov 2023**)

Q8.

Question	Answer	Mark	Mark scheme	Additional guidance
	6.95 **or** (2kg flour =) 2.70 **and** (5 kg sugar =) 4.25	P1 P1 P1 A1	for process to find the cost of 1kg of flour, eg 4.05 ÷ 3 (= 1.35) for process to work with cost of sugar, eg 11.85 – 5 × "1.35" (= 5.10) for process to find cost for 5kg of sugar, eg "5.10" ÷ 6 × 5(= 4.25) for 6.95 **or** (2kg flour =) 2.70 **and** (5 kg sugar =) 4.25	May be implied by (2 kg =) 2.70 May be implied by (1 kg =) 0.85 oe

(Q14 1MA1/2F, Nov 2023)

Q9.

Question	Answer	Mark	Mark scheme	Additional guidance
	Shown	P1 P1 C1	for a start to process of finding the total cost, eg 5 × 26 (= 130) or 4 × 45 (= 180) or 8 × 23.50 (= 188) or 26 + 45 + 23.50 (= 94.5(0)) **or** for a start to process of finding money left after paying costs, eg 500 – 26 (= 474) or 500 – 45 (= 455) or 500 – 23.50 (= 476.5(0)) or 500 – 5 × 26 (= 370) or 500 – 4 × 45 (= 320) or 500 – 8 × 23.50 (= 312) for complete process, eg "130" + "180" + "188" (= 498) **or** 500 – "130" – "180" – "188" (= 2) Shown with a complete process and correct figures.	

(Q09 1MA1/3F, June 2024)

Q10.

Question	Answer	Mark	Mark scheme	Additional guidance
(a)	No from correct figures	P1	for first step in process to solve the problem, eg find cost of 3 T-shirts, 25 × 3 (= 75) **or** eg find remaining money after just one purchase, eg 200 – 60 (= 140) or 200 – 25 (= 175)	Award this mark for addition of 2 or more items or for subtraction of one item or more from 200 eg 200 – 50 (= 150) etc.
		P1	for process to find total cost of trainers and T-shirts, eg 60 + "75" (= 135) **or** find total cost including cost of jacket, eg. 60 + "75" + 80 (= 215) **or** find the change after buying all 4 items, eg. 200 – 60 – 3 × 25 (= 65) oe	
		C1	for No from correct figures **Acceptable examples** No, needs 215 No, only has 65 left No, needs 15 more **Not acceptable examples** Yes ….	Figures can be given without units ($)
(b)	Explanation	P1	for a start to a method, eg. approximating 0.749 to 0.7, 0.74, 0.75 or 0.8	
		C1	for explanation **Acceptable examples** 0.7 × 60 = 42 [is an underestimate] 0.74 × 60 = 44.4(0) [is an underestimate] **Not acceptable examples** 0.75 × 60 = 45 [is an overestimate] 0.8 × 60 = 48 [is an overestimate]	For full marks, any calculations must be correct. No statement in words is needed.

(Q12 1MA1/1F, Nov 2019)

Q11.

Question	Answer	Mark	Mark scheme	Additional guidance
	2.5	M1	for $(R=)\frac{100I}{PT}$ **or** 600×5 (= 3000) **or** 75 × 100 (= 7500) **or** 75 ÷ 5 (= 15) **or** 75 ÷ 600 (= 0.125)	
		M1	for $\frac{75\times100}{600\times5}$ oe	Calculations may be done in stages.
			OR $\frac{"15"}{600}$ (= 0.025) **or** "0.125" ÷ 5 (= 0.025) **or** 1.025	May work in decimals or in percentages
		A1	cao	

(Q15 1MA1/2F, Nov 2018)

Q12.

Question	Answer	Mark	Mark scheme	Additional guidance
	50	P1	for 45 × 1.2 (= 54) **or** 34 × 1.5 (=51)	
		P1	for 150 – "54" – "51" (= 45)	
		P1	for "45" ÷ 0.9 (=50)	
		A1	cao	

(Q13 1MA1/3F, Nov 2018)

Q13.

Question	Answer	Mark	Mark scheme	Additional guidance
	3000	P1	for a correct step for travel or/and spending money eg 4 × 150 (=600) or 4 × 250 (=1000) or 150 + 250 (=400)	Can be embedded eg 4×7×150
		P1	for an appropriate step with the hotel price eg 7× 50 (=350) or 4 × 50 (=200)	Can be 4×7×50
		P1	for combining at least two "costs" for 4 people for 7 nights eg 4 × 150 + 4 × 250 (=1600) or 4 × 150 + 7 × 4 × 50 (=2000)	Must be correct process for two costs eg not 4 × 150 ×7 but may be 2 correct costs and one incorrect
		A1	cao	

(**Q06 1MA1/1F, June 2019**)

Q14.

Question	Answer	Mark	Mark scheme	Additional guidance
	Yes and statement	P1	for a first step towards solution, eg. 2 × 2.75 (= 5.5) or 2.75 + 2.9 (= 5.65) **OR** 10 − 1.5 (= 8.5) or 10 − 2.9 (= 7.1) or 10 − 2.75 (= 7.25)	
		P1	for a complete process to find figures to compare eg. 2 × 2.75 + 2.9 + 1.5 (= 9.90) or 10 − (2 × 2.75 + 2.9) (=1.60) **OR** 2 × 2.75 + 2.9 (=8.40) **and** 10 − 1.5 (= 8.5)	
		C1	for correct conclusion with accurate figure(s) eg. Yes and (£)1.6(0) **or** Yes and (£)9.9(0) **or** Yes and (£)8.4(0) **and** (£)8.5(0)	

(**Q06 1MA1/2F, June 2019**)

Q15.

Question	Answer	Mark	Mark scheme	Additional guidance
	4	P1	for start to process, eg 65 + 100 + 3 × 5 + 1 × 20 (= 200) **or** 3 × 80 (= 240)	May be part of an algebraic statement eg 65 + 100 +35 + 10*x*
		P1	for 65 + 100 + 3 × 5 + 1 × 20 (= 200) **and** 3 × 80 (= 240) **or** "240" – 100 – 65 (=75)	
		P1	for process to find value of £10 notes in Carl's wallet, eg "240" – "200" (= 40) **or** for "75" – 3 × 5 – 1 × 20 (=40)	
		A1	cao	NB 80 – 35 (=45) leading to 4 gets 0 marks

(**Q20 1MA1/3F, Nov 2020**)

Q16.

Question	Answer	Mark	Mark scheme	Additional guidance
	No with correct figures	P1	for 1.20 + 0.70 + 2.30 + 2.30 (= 6.5(0)) **or** for adding 3 correct costs **or** for 2 correct costs plus change **or** for 10 – 2 correct costs	Could work in £ or p for P marks Accept 2.30 + 2.30 (= 4.60) as 2 costs
		P1	for a complete correct method, eg 10 – "6.50" **or** 10 – 1.20 – 0.70 – 2.30 – 2.30 (=3.50) **or** 1.20 + 0.70 + 2.30 + 2.30 + 3.30 (=9.80)	Accept absence of "0" in pence column
		A1	for No with correct figures, eg 3.5(0) **or** 9.8(0)	

(**Q09 1MA1/1F, Nov 2021**)

Q17.

Question	Answer	Mark	Mark scheme	Additional guidance
	2540 shown	M1	for finding the cost of one item eg 2 × 600 (=1200) or 7 × 120 (=840) or 2 × 250 (=500)	
		M1	full process eg "1200" + "840" + "500" (=2540) **or** 2500 – "1200" – "840" – "500" (= ±40)	
		A1	for 2540 or ±40	Ignore written statements as long as the correct figures are shown

(**Q08 1MA1/3F, Nov 2021**)

Q18.

Question	Answer	Mark	Mark scheme	Additional guidance
	61	P1	for 300 ÷ 4.85 (= 61.8...)	This mark may be awarded for build-up methods that get to figures that are before or after 300
		A1	for 61.8... **or** 62	Embedded answers get −1 mark.
		A1	61	

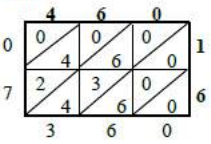
(**Q10 1MA1/3F, Nov 2021**)

Q19.

Question	Answer	Mark	Mark scheme	Additional guidance
	7	P1	for 20 – 6 (= 14) **or** 20 ÷ 2 (=10) **and** 6 ÷ 2 (=3)	May be seen as a build-up method or by a method of repeated subtraction, listing multiples of 2
		P1	for "14" ÷ 2 (= 7) **or** "10" – "3" (= 7)	
		A1	cao	

(**Q07 1MA1/1F, June 2022**)

Q20.

Question	Answer	Mark	Mark scheme	Additional guidance
	£73.60 or 7360p	M1	for 89198 – 88738 (= 460)	May see 0.16 used
			OR for showing 89198 × 16 **or** 88738 × 16	89198 × 16 = 1427168 88738 × 16 = 1419808
			OR for showing (89198 + 88738) × 16	(89198 + 88738) × 16 = 2846976
		M1	for showing "460" × 16	
			OR for showing 89198 × 16 – 88738 × 16	
		M1	(dep on M1) for a complete method of multiplication with relative place value correct including an intention to add all the appropriate elements of the calculation eg, 2 lines of the 1st method, internal numbers of grids, or complete structure shown of partitioning methods.	Accept in any units, correct figures would imply previous mark 4600 2760 7360  400+2400+600+360
		A1	for £73.6(0) or 7360p SC B3 for an answer with digits 736 with incorrect or missing units	

	400	60
10	4000	600
6	2400	360

(**Q11 1MA1/1F, June 2022**)

Q21.

Question	Answer	Mark	Mark scheme	Additional guidance
	213	P1	for beginning to work with costs eg 1428 – 150 (= 1278) **or** 1428 ÷ 6 (= 238) **and** 150 ÷ 6 (= 25)	
		P1	for complete process to find monthly payment eg "1278" ÷ 6 or "238" – "25"	
		A1	cao	

(**Q10 1MA1/2F, June 2022**)

Q22.

Question	Answer	Mark	Mark scheme	Additional guidance
	Chic Decor (supported)	P1	for process to find cost of 15 rolls from Chic Decor, eg $\frac{15}{3}\times 36$ (= 180) or for process to find cost of 15 rolls from Style Papers at normal price, eg $\frac{15}{5}\times 70$ (= 210) or for process to find cost of 1 roll from Chic Decor, eg 36 ÷ 3 (= 12) or for process to find cost of 1 roll from Style Papers, eg 70 ÷ 5 (= 14) or for process to find the cost of 5 rolls from Chic Decor, eg $\frac{36}{3}\times 5$ (= 60)	Could compare the costs for any number of rolls
		P1	for any first step in using the discount at Style Papers, eg 0.12 × "210" (= 25.2(0)) or 0.12 × "14" (= 1.68) or 0.12 × 70 (= 8.4(0)) **or** 1 – 0.12 (= 0.88)	
		P1	for full process to find cost from Style Papers, eg. "210" – "25.2" oe (=184.8(0)) or "0.88" × "210" or for "14" – "1.68" oe (= 12.32) or "0.88" × "14" or for 70 – "8.4(0)" oe (= 61.6(0)) or "0.88" × 70	
		C1	for Chic Decor with fully correct figures eg 180 and 184.8(0) or 12 and 12.32 or 60 and 61.6(0)	

(**Q25 1MA1/3F, June 2022**)

Q23.

Question	Answer	Mark	Mark scheme	Additional guidance
	Chic Decor (supported)	P1	for process to find cost of 15 rolls from Chic Decor, eg $\frac{15}{3}\times 36$ (= 180) or for process to find cost of 15 rolls from Style Papers at normal price, eg $\frac{15}{5}\times 70$ (= 210) or for process to find cost of 1 roll from Chic Decor, eg 36 ÷ 3 (= 12) or for process to find cost of 1 roll from Style Papers, eg 70 ÷ 5 (= 14) or for process to find the cost of 5 rolls from Chic Decor, eg $\frac{36}{3}\times 5$ (= 60)	Could compare the costs for any number of rolls
		P1	for any first step in using the discount at Style Papers, eg 0.12 × "210" (= 25.2(0)) or 0.12 × "14" (= 1.68) or 0.12 × 70 (= 8.4(0)) **or** 1 – 0.12 (= 0.88)	
		P1	for full process to find cost from Style Papers, eg. "210" – "25.2" oe (=184.8(0)) or "0.88" × "210" or for "14" – "1.68" oe (= 12.32) or "0.88" × "14" or for 70 – "8.4(0)" oe (= 61.6(0)) or "0.88" × 70	
		C1	for Chic Decor with fully correct figures eg 180 and 184.8(0) or 12 and 12.32 or 60 and 61.6(0)	

(**Q04 1MA1/3H, June 2022**)

Q24.

Question	Answer	Mark	Mark scheme	Additional guidance
	49.01	P1	for process to work with the number of miles, eg 12845 – 12468 (= 377) **or** 12845 × 13 (= 166985) **or** 12468 × 13 (= 162084)	
		P1	for process to find the cost, eg "377" × 13 (= 4901) **or** "166985" – "162084" (= 4901)	
		B1	(indep) for converting from pence to pounds, eg "4901" ÷ 100 **or** 13 ÷ 100 **or** miles divided by 100 eg "377" ÷ 100 (= 3.77) or 12845 ÷ 100 (= 128.45) **and** 12468 ÷ 100 (= 124.68)	This mark can be awarded at any stage in the process
		A1	49 or 49.01	

(**Q07 1MA1/2F, Nov 2022**)

Q25.

Question	Answer	Mark	Mark scheme	Additional guidance
	4 pint with correct figures	P1	for a process to find the price for one deal, eg 6 pints on 1st deal, 75×2 (= 150) **or** 8 pints on 2nd deal, 128×1.5 (= 192) oe	
		P1	for a process to find the price for both deals, eg 6 pints on 1st deal, 75×2 (= 150) **and** 8 pints on 2nd deal, 128×1.5 (= 192) oe	
		P1	for a process to find the cost per pint for both deals, eg "150" ÷ 6 (= 25) **and** "192" ÷ 8 (= 24) **or** for prices for a consistent number of pints for both deals eg for 2 pints "1.5" ÷ 3 (=0.5) **and** "1.92" ÷ 4 (= 0.48) **or** a comparison using a unit price eg "150" ÷ 6 × 8 (= 200) **and** 128×1.5 (= 192) oe	Accept in mixed units of pence and pounds Might look at a price difference for a consistent number of pints
		C1	"4 pint" with two correct comparative costs calculated making full use of both offers	"4 pint" can be indicated in words or other indication

(Q13 1MA1/2F, Nov 2022)

Q26.

Question	Answer	Mark	Mark scheme	Additional guidance
	186.15	P1	for correctly finding the area of at least three sections, eg 3 of 11×7 (= 77), **or** 9×7 (= 63), **or** $\frac{1}{2} \times 11 \times 9$ (= 49.5), **or** $\frac{1}{4} \times \pi \times 7^2$ (= 38.4845..)	Note a trapezium for the rectangle and triangle should be classed as two areas. Accept figures rounded or truncated to 1 dp or better throughout.
		P1	for a method to find the number of bags required for one area or a combination of areas eg "77" ÷ 14 (= 5.5) **or** "227.9845.." ÷ 14 (= 16.2846…)	
		P1	for method to work out the total area for all four sections eg "77" + "63" + "49.5" + "38.4845…" (= 227.9845…) or adding the exact number of bags per section for all four sections eg "5.5" + "4.5" + "3.53.." + "2.74.." (= 16.28...)	This mark is dependent upon correct processes seen for all four sections.
		P1	for method to find the cost, eg integer number of bags × 10.95	integer number of bags must come from area ÷ 14 rounded up
		A1	cao	

(Q21 1MA1/2F, Nov 2022)

Q27.

Question	Answer	Mark	Mark scheme		Additional guidance
	Yes (supported)	P1	for finding the cost of 1 kg of carrots eg 1.74 ÷ 3 (= 0.58)	for finding the cost of 1 kg onions eg 2.(00) ÷ 4 (= 0.5)	for all P marks can work in pence or in £
		P1	for isolating the cost of 2.5 kg of onions eg 2.36 – (2 × "0.58") (= 1.2(0))	for finding the cost of 2.5 kg of onions eg 2.5 × "0.5" (= 1.25)	
		P1	for the cost of 1 kg of onions **or** 0.5 kg of onions, eg "1.20" ÷ 2.5 (= 0.48) **or** "1.20" ÷ 5 (= 0.24) **or** for 4 ÷ 2.5 (= 1.6)	for finding the cost of 2 kg of carrots eg 2.36 – "1.25" (= 1.11)	
		P1	for the cost of 4 kg of onions, eg 4 × "0.48" **or** 8 × "0.24" (= 1.92) **or** for "1.6" × "1.2(0)"	for finding the cost of 3 kg of carrots eg "1.11" ÷ 2 × 3 (= 1.665) *for comparison with 1.74*	
		C1	Yes with correct figures shown eg 192 **or** 1.92 **or** "has 8p left" **or** 166.5		Allow comparison of mixed units eg 192 with £2

(**Q15 1MA1/3F, Nov 2022**)

Q28.

Question	Answer	Mark	Mark scheme	Additional guidance
	145.60	P1	for a process to work out the value of the large bars eg 208 ÷ 4 (=52 or 5200)	units may be ignored for the process marks work could be in pence or £
		P1	for a process to work out the value of the small bars eg (208 – "52") × 60 or $(1-\frac{1}{4}) \times 208 \times 60$ (=9360 or 93.6(0)) **or** for 145.6	
		A1	for 145.60 cao (must be correct money notation)	

(**Q07 1MA1/3F, Nov 2022**)

Q29.

Question	Answer	Mark	Mark scheme	Additional guidance
	60	P3	for complete process to find the total costings eg 23 + 33 + 24.5(0) + 24.5(0) + 15 + 10 + 10 (= 140) **or** for a complete process to find the total money left, eg. 200 – 23 – 33 – 24.5(0) – 24.5(0) – 15 – 10 – 10 (= 60), condone one error, eg one omission or one additional cost	All processes may be seen as part of subtractions to find money left
		(P2	for process to find the total cost of all theme park tickets, eg 33 + 2 × 24.5(0) (= 33 + 49 = 82) **or** for process to find the total cost of all meals, eg 15 + 2 × 10 (= 15 + 20 = 35) **or** for process to find the total cost for the children, eg 2 × 24.5(0) + 2 × 10 (= 49 + 20 = 69) **or** for process to find total costs with just **one** child, eg 23 + 33 + 24.5(0) + 15 + 10 (= 105.5(0)))	Additions may include other elements for process marks, eg. 23 + 33 + 2 × 24.5(0)
		(P1	for a start to a correct process, considering at least 2 costs eg 33 + 24.5(0) (= 57.5(0)) or 2 × 24.5(0) (= 49) **or** for start to a process to find money left, eg 200 – 23 (= 177) or 200 – 33 (= 167))	May be any start to a correct process
		A1	cao	

(**Q06 1MA1/1F, Nov 2022**)

Q30.

Question	Answer	Mark	Mark scheme	Additional guidance
(a)	5	P1	for correct process, eg 23 ÷ 4 (= 5.75) **or** adds 4s up to at least 20 **or** repeatedly subtracts 4 up to a remainder of less than 4	
		A1	cao	
(b)	No (supported)	C1	for No with reason **Acceptable examples** Can buy 11 jars Can buy an extra jar (for the £3 extra) Can buy 10 jars for £20 He will have £3 left Because he can buy more than twice the number of jars Because 23 ÷ 2 = 11.5 **Not acceptable examples** Yes ..... Can buy 10 / Can buy 12	

(**Q10 1MA1/1F, Nov 2022**)

Q31.

Question	Answer	Mark	Mark scheme	Additional guidance
	Yes (supported)	P1	for an initial process, eg 6 × 2 (=12) **or** 80 ÷ 2 (=40 = 0.40) oe **or** 6 × 0.8 (= 4.80) oe **or** 6 ÷ 2 (= 3)	May work in pounds or pence
		P1	for a process using the special offer eg 6 × "40" (= 240 or 2.40) oe **or** "4.80" ÷ 2 (= 2.40) oe **or** 2 + "0.40" (= 2.40) oe **or** "3" × 0.8 (= 2.40)	Allow use of inconsistent units for the first 2 marks
		P1	for a complete process to find figures to compare, eg 6 × 2 + 6 × "0.40" (= 14.40) oe **or** 15 – "12" – "2.40" (= 0.60 or 60p)	
		C1	for Yes with correct comparable figures, eg Yes **and** (£)14.4(0) **or** Yes **and** (£)0.6(0) or 60p change	Award 0 marks for a correct answer with no supportive working. Answer of 'No' gets C0 irrespective of working, correct or not. Ignore incorrect value for change, if (£) 14.4(0) seen

(**Q10 1MA1/1F, June 2023**)

Q32.

Question	Answer	Mark	Mark scheme	Additional guidance
	12.5(0)	M1	for 50 ÷ 4	
		A1	cao	

(**Q06 1MA1/2F, Nov 2023**)

Q33.

Question	Answer	Mark	Mark scheme	Additional guidance
	23	P1	for finding the number of scrunchies possible eg 100 ÷ 5 (= 20) **or** the cost of 1 g of wool eg 300 ÷ 100 (= 3)	
		P1	for working out the cost of wool per scrunchie eg 3 ÷ "20" (= 0.15) **or** 300 ÷ "20" (= 15) **or** "3" × 5 (= 15) **or** the cost of all hair bands eg "20" × 8 (= 160) **or** "20" × 0.08 (= 1.6(0))	Award of this mark implies the previous mark 460 implies P2
		P1	for complete process eg ("0.15" + 0.08) × 100 **or** "15" ÷ 8 **or** (300 + "160") ÷ "20" **or** (3 + "1.6(0)") ÷ "20" × 100	
		A1	accept £0.23	

(**Q13 1MA1/1F, Nov 2023**)

Q34.

Question	Answer	Mark	Mark scheme	Additional guidance
	1.5(0)	P1	for 4 × 1.30 (= 5.2(0)) **or** 10 – 1.80 (= 8.2(0))	Working could be in pence
		P1	for 10 – 1.80 – "5.20" (= 3) oe	
		P1	for "3" ÷ 2	
		A1	cao	Condone answer £1.5(0)p
			SCB2 for answer (£)2.4(0)	

(**Q06 1MA1/1F, June 2024**)

Q35.

Question	Answer	Mark	Mark scheme	Additional guidance
	20	P1	for 30 + 45 × 10 (= 480) or 50 × 10 − 45 × 10 (= 50) or 50 × 10 − 30 (= 470)	
		P1	for 50 × 10 – "480"	P1P1 for 500 − 450 − 30 may be seen in stages
		A1	cao	
			SCB1 for answer 250 or −250 if P0 scored.	

(**Q06 1MA1/1F, Nov 2024**)

Q36.

Question	Answer	Mark	Mark scheme	Additional guidance
(a)	49.9(0)	B1	for 49.9(0)	
	30	B1	for 30	
	417.31	B1	for 417.31, ft allow 367.41 + [their 49.9(0)] for this mark	To award B1ft, the total for tin of paint must not be blank or 0
(b)	771.45	M1	for a correct first step, eg 892.48 + 4.47 (= 896.95) **or** 892.48 + 240 (= 1132.48) **or** 892.48 – 365.5(0) (= 526.98) **or** 4.47 + 240 (= 244.47)	May be seen embedded in other calculations eg 4.47 + 240 – 365.5(0)
		M1	for a complete method, eg 892.48 + 4.47 + 240 – 365.5(0)	
		A1	cao	

(**Q08 1MA1/3F, Nov 2024**)

Q37.

Question	Answer	Mark	Mark scheme	Additional guidance
	324	P1	for a process to work out daily pay on a weekday, eg 8 × 6 (= 48) **or** a process to work out the number of hours of pay for weekdays, eg 6 × 5 (= 30) **or** the number of hours of pay for Saturday and Sunday, eg (4 + 3) × 1.5 (= 10.5) **or** a process to work out rate of pay for Saturday or Sunday, eg 8 × 1.5 (= 12)	
		P1	for a process to work out the total pay from Monday to Friday, eg "48" × 5 (= 240) **or** "30" × 8 (= 240) **or** for a process to work out the total pay from Saturday and Sunday, eg "10.5" × 8 (= 84) **or** "12" × (4 + 3) (= 84) **or** a process to work out the total number of hours of pay, eg "30" + "10.5" (= 40.5)	
		P1	for a complete process, eg "240" + "84" **or** "40.5" × 8	
		A1	cao	

(**Q14 1MA1/3F, Nov 2024**)

Q38.

Question	Answer	Mark	Mark scheme		Additional guidance
	No (supported)	P1	calculates area of trapezium eg ½ × 7 × (10+16) (= 91)		
		P1	for division by coverage eg ÷2 or [area of trapezium] ÷ 2 (= 45.5) or process to find coverage per tin eg 5 × 2 (= 10)	for process to find number of tins bought eg 160 ÷ 16.99 = 9 tins	[area of trapezium] needs to be clearly stated if the process of finding the area is not clear
		P1	for division to find the number of tins eg ÷5 or "45.5" ÷ 5 (= 9.1) **or** [area of trapezium] ÷ "10" (= 9.1)	for using whole no. of tins to find total litres eg 9 × 5 (= 45)	
		P1	(dep on at least P2) for a process to multiply a whole number of tins (rounded up) by 16.99	(dep on at least P2) for a process to find the total coverage eg "45" × 2 (= 90)	
		C1	for 'No' supported by correct figures eg 169.9 or 90 **and** 91		There must be a conclusion ("No" or equivalent wording) including the figure 169.9 and working showing processes followed.

(**Q24 1MA1/2F, Nov 2018**)

Q39.

Question	Answer	Mark	Mark scheme		Additional guidance
	No	P1	calculates area of trapezium eg ½ × 7 × (10+16) (= 91)		
	(supported)	P1	for division by coverage eg ÷2 or [area of trapezium] ÷ 2 (= 45.5) or process to find coverage per tin eg 5 × 2 (= 10)	for process to find number of tins bought eg 160 ÷ 16.99 = 9 tins	[area of trapezium] needs to be clearly stated if the process of finding the area is not clear
		P1	for division to find the number of tins eg ÷5 or "45.5" ÷ 5 (= 9.1) **or** [area of trapezium] ÷ "10" (= 9.1)	for using whole no. of tins to find total litres eg 9 × 5 (= 45)	
		P1	(dep on at least P2) for a process to multiply a whole number of tins (rounded up) by 16.99	(dep on at least P2) for a process to find the total coverage eg "45" × 2 (= 90)	
		C1	for 'No' supported by correct figures eg 169.9 or 90 **and** 91		There must be a conclusion ("No" or equivalent wording) including the figure 169.9 and working showing processes followed.

(**Q05 1MA1/2H, Nov 2018**)

Q40.

Question	Answer	Mark	Mark scheme	Additional guidance
	Accurate figures with supportive working	M1	for a correct first step eg 600 ÷ 30 (= 20) **or** 120 ÷ 30 (=4) **or** 600 × 120 (=72 000) **or** 30 × 30 (=900)	Could work in m or cm
		M1	for finding an appropriate cost 2.5 × "20" (=50) **or** 2.5 × "4" (=10) **OR** number of tiles required "72 000" ÷ "900" (=80) **or** "4" × "20" (=80) **OR** number they can afford 220 ÷ 2.5 (=88)	Units must be consistent
		M1	for full **method** to get figures to compare eg cost to tile whole area eg "80" × 2.5 **OR** number of tiles they need and number they can afford eg "72 000" ÷ "900" and 220 ÷ 2.5	
		A1	for 200 **OR** 80 and 88 **OR** 72 000 and 79 200 **OR** 132 (cm) **OR** 660 (cm) SC B2 for answer of 60	

(**Q18 1MA1/1F, June 2019**)

Q41.

Question	Answer	Mark	Mark scheme	Additional guidance
	78	P1	for process to find the number of rand, eg 850 × 18.53 (= 15750.5) **OR** for process to find number of £, eg 200 ÷ 18.53 (= 10.79 …)	
		P1	(dep P1) for process to find the number of rand notes, eg "15750.5" ÷ 200 (= 78.7...) **OR** 850 ÷ "10.79.." (= 78.7...)	
		A1	cao	

(**Q21 1MA1/3F, June 2019**)

Q42.

Question	Answer	Mark	Mark scheme	Additional guidance
	1.3	M1	for working with boxes or bags eg 600 ÷ 120 (= 5) or 1000 ÷ 270 (= 3.7(037..)) 6 ÷ 120 (=0.05) or 10 ÷ 270 (= 0.037(037..))	Cost ÷ quantity For the M marks allow working in £ instead of p.
		M1	for working with bags and boxes where they are working to the same quantities of boxes and bags eg 600 ÷ 120 (= 5) **and** 1000 ÷ 270 (= 3.7(037..)) 6 ÷ 120 (=0.05) **and** 10 ÷ 270 (= 0.037(037..))	Other values are possible where they are using alternative quantities of boxes and bags, but these must be the same quantities of each.
		M1	for finding the difference eg "5" – "3.7(037..)" (= 1.29.. to 1.3) or "0.05" − "0.037(037..))" (= 0.0129.. to 0.013)	Must have consistent units for this mark.
		A1	for answer in the range 1.29 to 1.3	If an answer is given in the range in working and then rounded incorrectly award full marks.

(**Q14 1MA1/3F, June 2023**)

Q43.

Question	Answer	Mark	Mark scheme	Additional guidance
(a)	2.5(0)	P1	for 13 × 7.5(0) (=97.5(0)) **or** 5 × 20 (=100)	
		P1	for "100" – "97.5(0)"	
		A1	cao	
(b)	96	M1	for $\frac{1}{5}$ × 120 (= 24) oe **or** $\frac{4}{5}$ × 120 oe	
		A1	cao	

(**Q11 1MA1/3F, Nov 2019**)

Q44.

Question	Answer	Mark	Mark scheme	Additional guidance
	1204	P2	for a full process to find 120% of 14200 eg. 1.2 × 14200 (=17040) **or** (0.2 × 14200) + 14200 (=17040)	
		(P1	for process to find 20% of 14200 eg. 0.2 × 14200 (=2840) oe)	
		P1	for [cost] − 5000	[cost] must be greater than 14200
		A1	cao	
			SCB1 for answer of 920 if P0 scored	

(**Q18 1MA1/3F, Nov 2018**)

Q45.

Question	Answer	Mark	Mark scheme	Additional guidance
	260 to 260.5	M1	for 883 – 245 (=638) **or** 883 ÷ 245 (=3.60..) **or** 883 ÷ 245 × 100 (=360(.408...)) oe	
		M1	for a complete method to find the percentage increase eg "638" ÷ 245 × 100 (=260(.408..)) **or** 883 ÷ 245 × 100 − 100 (=260(.408..)) oe	
		A1	Accept answers in the range 260 to 260.5	

(**Q02 1MA1/3H, Nov 2018**)

Q46.

Question	Answer	Mark	Mark scheme	Additional guidance
	260 to 260.5	M1	for 883 – 245 (=638) **or** 883 ÷ 245 (=3.60..) **or** 883 ÷ 245 × 100 (=360(.408..)) oe	
		M1	for a complete method to find the percentage increase eg "638" ÷ 245 × 100 (=260(.408..)) **or** 883 ÷ 245 × 100 − 100 (=260(.408..)) oe	
		A1	Accept answers in the range 260 to 260.5	

(**Q21 1MA1/3F, Nov 2018**)

Q47.

Question	Answer	Mark	Mark scheme	Additional guidance
	1.8	P1	process to find the amount of interest before tax eg $28.80 \div 20 \times 100$ (= 144) OR for equation which would lead to (x =) 0.018, 1.8 or 1.018 eg $0.2 \times 8000 \times x = 28.8$ or $\frac{8000(100+x)}{100} = 8144$	
		P1	process to find the interest rate eg $\frac{"144"}{8000}$ (= 0.018) or $\frac{"8144"}{8000}$ (= 1.018)	These numerical expressions may be seen multiplied by 100, eg $\frac{144}{8000} \times 100$
		A1	cao	

(Q10 1MA1/3H, June 2019)

Q48.

Question	Answer	Mark	Mark scheme	Additional guidance
	20	P1	for process to find SP of 24 chocolate bars, eg. 0.50×24 (= 12) oe **or** for process to find the overall profit eg $(24 \times 0.5) - 10$ (= 2) **or** for process to find CP of one chocolate bar, eg. $1000 \div 24$ (= 41.66…) oe	Working can be carried out in either pounds or pence.
		P1	(dep) for start to a process to find percentage profit, eg. using $\frac{"12"-10}{10}$ **or** $\frac{"12"}{10}$ **or** $\frac{50-"41.66..."}{"41.66..."}$ oe with consistent units	
		A1	cao	

(Q05 1MA1/1H, Nov 2020)

Q49.

Question	Answer	Mark	Mark scheme	Additional guidance
	20	P1	for process to find SP of 24 chocolate bars, eg. 0.50×24 (= 12) oe **or** for process to find the overall profit eg $(24 \times 0.5) - 10$ (=2) **or** for process to find CP of one chocolate bar, eg. $1000 \div 24$ (= 41.66…) oe	Working can be carried out in either pounds or pence.
		P1	(dep) for start to a process to find percentage profit, eg. using $\frac{"12"-10}{10}$ **or** $\frac{"12"}{10}$ **or** $\frac{50-"41.66.."}{"41.66..."}$ oe with consistent units	
		A1	cao	

(Q24 1MA1/1F, Nov 2020)

Q50.

Question	Answer	Mark	Mark scheme	Additional guidance
	2.5	P1	for $450 \div 6$ (= 75) **or** statement $450 = \frac{3000 \times 6 \times y}{100}$ oe **or** $\frac{450}{3000}$ (= 0.15) or $\frac{450 \times 100}{3000}$ (= 15)	
		P1	for "75" ÷ 3000 (= 0.025) **or** (y =) $\frac{450 \times 100}{3000 \times 6}$ oe **or** $\frac{"0.15"}{6}$ (= 0.025) or $\frac{"15"}{6}$ **or** $\frac{3000 + "75"}{3000}$ (= 1.025)	
		A1	cao	

(**Q19 1MA1/3F, June 2023**)

Q51.

Question	Answer	Mark	Mark scheme	Additional guidance
	450	P1	for working with percentage eg 12000 × 25 ÷100 (= 3000) oe **OR** for splitting the cost of the car over 20 months eg 12000 − 20 (= 600)	
		P1	for finding the amount to pay in instalments eg 12000 – [deposit] (= 9000) **OR** for splitting the cost of the deposit over 20 months eg [deposit] ÷ 20 (= 150) **OR** for finding 25% of the monthly cost eg "600" × 25 ÷ 100 (= 150) oe	[deposit] can be 3000 or any figure that is identified by them as the deposit or 25% of 12000 calculated incorrectly.
		P1	for finding the amount required eg "9000" ÷ 20 **or** (12000 – [deposit]) ÷ 20 **OR** "600" – "150"	
		A1	cao	

(**Q15 1MA1/1F, Nov 2023**)

Q52.

Question	Answer	Mark	Mark scheme	Additional guidance
	1100	M1	for a complete method to find the original cost, eg $660 \div (100 - 40) \times 100$ or $660 \div 0.6$ oe	
		A1	cao	

(**Q08 1MA1/1H, Nov 2023**)

Q53.

Question	Answer	Mark	Mark scheme	Additional guidance
	15	P1	for process to find number of child tickets, eg 180 ÷ 100 × 60 (= 108) oe	
		P1	for process to find total cost of child tickets, eg "108" × 8 (= 864) **or** [108] × 8 **OR** for process to find number of adult tickets, eg 180 – [108] (= 72) or 180 ÷ 5 × 2 (= 72) oe or $180 \times \frac{100-60}{100}$	Where [108] is what they clearly think is 60% of 180 but can't be greater than 180
		P1	for a complete process, eg (1944 – "864") ÷ "72" **or** (1944 – [108] × 8) ÷ (180 – [108])	
		A1	cao	

(**Q12 1MA1/2F, Nov 2024**)

Q54.

Question	Answer	Mark	Mark scheme	Additional guidance
(a)	265.05	M1	for 285 × (7 ÷ 100) (= 19.95) oe **or** (100 – 7) ÷ 100 (= 0.93)	
		M1	for 285 – "19.95" **or** 285 × "0.93" oe	
		A1	cao	Accept £265.05p
(b)	8000	P1	for start of process, eg 2100 – 1700 (= 400)	
		P1	for using "400" = 5%, eg (1% =) "400" ÷ 5 (= 80) or (10% =) "400" × 2 (= 800) or (50% =) "400" × 10 (= 4000) **or** "400" ÷ 5 × 100	
		A1	cao	

(**Q17 1MA1/2F, Nov 2024**)

Q55.

Question	Answer	Mark	Mark scheme	Additional guidance
	55	M1	for a complete method eg 46.75 ÷ 0.85 oe **or** for a correct equation eg $0.85x = 46.75$ oe **or** 55 seen, then used as part of an extended method eg 8.75 or 101.75	
		A1	accept trailing zeros eg 55.00	

(**Q10 1MA1/3H, Nov 2024**)

Q56.

Question	Answer	Mark	Mark scheme	Additional guidance
	Yes with correct figures	P1	begins to work with proportion eg 20 ÷ 2 (=10) **or** 20 ÷ 5 (=4) **or** 2.38 ÷ 2(=1.19) **or** 5.60 ÷ 5 (=1.12)	Throughout monetary units not required; trailing zeros not needed. Can work in pence throughout
		P1	full process to find the cost of 20 pens **or** 20 folders eg. 20 ÷ 2 × 2.38 (=23.8) **or** 20 ÷ 5 × 5.60 (=22.4) **or** 2.38 ÷ 2 × 20 (=23.8) **or** 5.60 ÷ 5 × 20 (=22.4)	
		P1	full process to find total price **or** amount remaining eg "23.8" + "22.4" (=46.2) **or** 50 − "23.8" − "22.4" (=3.8)	
		C1	Yes with correct figures eg 46.2 **or** 3.8 (left)	'Yes' might be implied from working eg 46.2<50 or a statement that 3.8 is left, but 46.2 alone must also show an answer such as 'Yes' (may be written elsewhere). Working leading to 46.2 must be shown for this mark.

(Q08 1MA1/3F, Nov 2018)

Q57.

Question	Answer	Mark	Mark scheme	Additional guidance
	Zurich (supported)	P1	for one process to compare, eg eg Currency conversion, 3.5 × 1.25 (= 4.375) **or** 7.20 ÷ 1.25 (= 5.76) **or** finds 1g in one place £3.50 ÷ 200 (= 0.0175) **or** 7.20 ÷ 360 (= 0.02) **or** finds 200g in Zurich, 7.2 ÷ 360 × 200 (= 4.0) **or** finds 360g in London, 3.5 ÷ 200 × 360 (= 6.30) **or** finds grams per unit cost, 200 ÷ 3.50 (= 57.1..) **or** 360 ÷ 7.20 (= 50)	Accept figures rounded or truncated to 2sf throughout
		P1	for a complete process to find comparable figures in the same currency, eg comparing 200g in £ or francs 3.5 × 1.25 (= 4.375) **and** 7.2 ÷ 360 × 200 (= 4.0) **or** "4.0" ÷ 1.25 (= 3.20) **OR** comparing 360g in £ or francs "6.30" × 1.25 (= 7.875) **or** 3.5 ÷ 200 × 360 (= 6.30) **and** 7.20 ÷ 1.25 (= 5.76) **OR** comparing 1g in £ or francs "0.0175" × 1.25 (= 0.0218…) **and** 7.20 ÷ 360 (= 0.02) **or** £3.50 ÷ 200 (= 0.0175) **and** "0.02" ÷ 1.25 (= 0.016) **OR** comparing quantity per unit cost in £ or francs 200 ÷ 3.50 (= 57.1…) **and** 360 ÷ "5.76" (= 62.5) **or** 200 ÷ "4.375" (= 45.7…) **and** 360 ÷ 7.20 (= 50)	Accept working in pence Ignore incorrect units for P marks Award of this mark implies the previous mark
		C1	for Zurich supported by correct comparable values, eg 4.3(75 F) **and** 4(.0 F) **or** (£)3.2(0) **or** 7.8(75 F) **or** (£)6.3(0) **and** (£)5.76 **or** 0.021(8… F) **and** 0.02 (F) **or** (£)0.017(5) **and** (£)0.016 **or** 57(.1… g/£) **and** 62(.5 g/£) **or** 45(.7… g/F) **and** 50 (g/F)	Clear indication that bar is better value for money in Zurich supported by correct values for comparison Units not needed but if stated must be correct. Table with examples below

Additional guidance

	London	Zurich
100g	3.5 ÷ 2 = **£1.75** 1.75 × 1.25 = **2.1875 F**	7.2 ÷ 360 = **2.00 F** 2.00 ÷ 1.25 = **£1.60**
200g	**£3.50** 3.5 × 1.25 = **4.375 F**	7.2 ÷ 360 × 200 = **4.0 F** 4.0 ÷ 1.25 = **£3.20**
360g	3.5 ÷ 200 × 360 = **£6.30** 6.30 × 1.25 = **7.875 F**	**7.20 F** 7.20 ÷ 1.25 = **£5.76**
1g	£3.50 ÷ 200 = **£0.0175**	7.20 ÷ 360 = **0.02 F**
	× 1.25 = **0.021875 F**	÷ 1.25 = **£0.016**
40g	£3.50 ÷ 5 = **£0.70** 0.7 × 1.25 = **0.875 F**	7.20 ÷ 9 = **0.8 F** 0.8 ÷ 1.25 = **£0.64**
By weight	350 ÷ 200 = **1.75 p/g** 350 × 1.25 = 4.375 4.375 ÷ 200 = **0.021875 F/g**	720 ÷ 360 = **0.02 F/g** 720 ÷ 1.25 = 576 576 ÷ 360 = **1.6 p/g**
By cost	200 ÷ 350 = **0.571 g/p** 350 × 1.25 = 437.5 200 ÷ 437.5 = **45.7 g/F**	360 ÷ 720 = **50 g/F** 720 ÷ 1.25 = 576 360 ÷ 576 = **0.625 g/P**

(**Q22 1MA1/2F, Nov 2024**)

Q58.

Question	Answer	Mark	Mark scheme	Additional guidance
	Zurich (supported)	P1	for one process to compare, eg eg Currency conversion, 3.5 × 1.25 (= 4.375) **or** 7.20 ÷ 1.25 (= 5.76) **or** finds 1g in one place £3.50 ÷ 200 (= 0.0175) **or** 7.20 ÷ 360 (= 0.02) **or** finds 200g in Zurich, 7.2 ÷ 360 × 200 (= 4.0) **or** finds 360g in London, 3.5 ÷ 200 × 360 (= 6.30) **or** finds grams per unit cost, 200 ÷ 3.50 (= 57.1..) **or** 360 ÷ 7.20 (= 50**)**	Accept figures rounded or truncated to 2sf throughout
		P1	for a complete process to find comparable figures in the same currency, eg comparing 200g in £ or francs 3.5 × 1.25 (= 4.375) **and** 7.2 ÷ 360 × 200 (= 4.0) **or** "4.0" ÷ 1.25 (= 3.20) **OR** comparing 360g in £ or francs "6.30" × 1.25 (= 7.875) **or** 3.5 ÷ 200 × 360 (= 6.30) **and** 7.20 ÷ 1.25 (= 5.76) **OR** comparing 1g in £ or francs "0.0175" × 1.25 (= 0.0218…) **and** 7.20 ÷ 360 (= 0.02) **or** £3.50 ÷ 200 (= 0.0175) **and** "0.02" ÷ 1.25 (= 0.016) **OR** comparing quantity per unit cost in £ or francs 200 ÷ 3.50 (= 57.1…) **and** 360 ÷ "5.76" (= 62.5) **or** 200 ÷ "4.375" (= 45.7…) **and** 360 ÷ 7.20 (= 50**)**	Accept working in pence Ignore incorrect units for P marks Award if this mark implies the previous

		C1	for Zurich supported by correct comparable values, eg 4.3(75 F) **and** 4(.0 F) **or** (£)3.2(0) **or** 7.8(75 F) **or** (£)6.3(0) **and** (£)5.76 **or** 0.021(8… F) **and** 0.02 (F) **or** (£)0.017(5) **and** (£)0.016 **or** 57(.1… g/£) **and** 62(.5 g/£) **or** 45(.7… g/F) **and** 50 (g/F)	Clear indication that bar is better value for money in Zurich supported by correct values for comparison Units not needed but if given must be correct Table with examples below

	London	Zurich
100g	3.5 ÷ 2 = **£1.75** 1.75 × 1.25 = **2.1875 F**	7.2 ÷ 360 = **2.00 F** 2.00 ÷ 1.25 = **£1.60**
200g	**£3.50** 3.5 × 1.25 = **4.375 F**	7.2 ÷ 360 × 200 = **4.0 F** 4.0 ÷ 1.25 = **£3.20**
360g	3.5 ÷ 200 × 360 = **£6.30** 6.30 × 1.25 = **7.875 F**	**7.20 F** 7.20 ÷ 1.25 = **£5.76**
1g	£3.50 ÷ 200 = **£0.0175** × 1.25 = **0.021875 F**	7.20 ÷ 360 = **0.02 F** ÷ 1.25 = **£0.016**
40g	£3.50 ÷ 5 = **£0.70** 0.7 × 1.25 = **0.875 F**	7.20 ÷ 9 = **0.8 F** 0.8 ÷ 1.25 = **£0.64**
By weight	350 ÷ 200 = **1.75 p/g** 350 × 1.25 = 4.375 4.375 ÷ 200 = **0.021875 F/g**	720 ÷ 360 = **0.02 F/g** 720 ÷ 1.25 = 576 576 ÷ 360 = **1.6 p/g**

(**Q03 1MA1/2H, Nov 2024**)

Q59.

Question	Answer	Mark	Mark scheme	Additional guidance
	35	P1	use of ratio 2:3 and tin quantities to find overall ratio of litres eg 4:3 or 4 tins : 3 tins **or** 20 litres (Y) & 30 litres (B)	
		P1	calculates total cost of making paint eg 4 × 26 + 3 × 48 (50 litres) **or** 104+144 (=248)	Could be multiples 4 & 3 (for an amount which is a multiple of 50 litres). "248" is the total cost for making 50 litres
		A1	calculates comparable cost eg 10 litres (1 tin) green paint made as 49.6 **or** differences (profit) for 1 tin as 17.36 or 5 tins as 86.8 **or** total comparable costs for 50 litres as 334.8 **and** 248, for 25 litres as 167.4 **and** 124 or 1 litres as 33.48 **and** 24.8	"248" ÷ 5 = 49.6 for 10 litre (1 tin) green paint made Profit on 10 litres is 66.96 – 49.60 = 17.36 Profit on 50 litres is 304.8 – 248 = 86.8 334.8 comes from 5 × 66.96 and is the selling price for 50 litres green paint
		P1	for percentage calculation eg $\frac{1736}{4960}\times 100$, $\frac{"334.8"-"248"}{"248"}\times 100$	
		A1	cao	

(**Q10 1MA1/2H, Nov 2018**)

Q60.

Question	Answer	Mark	Mark scheme	Additional guidance
	1.75	P1	for an initial process eg 1.80 ÷ 12 (=0.15) or 1.80 ÷ 3 (=0.6)	Accept 1.8 ÷ 12 = 15 (p) They can work in pounds or pence
		P1	for a correct second step eg "0.15" ÷ 3 (=0.05) or "0.6" × 7 (=4.2) or 3÷ "0.15"(=20) or 7 ÷ 3 (=2.3..) or "0.15" × 7 (=1.05)	
		P1	for finding the price of one pen eg-"0.05" × 7 (=0.35) or "4.2" ÷ 12 (=0.35) or 7 ÷ "20"(=0.35) or "2.3.... × "0.15" (=0.35) or "1.05" ÷ 3 (=0.35)	
		A1	cao	

(**Q20 1MA1/2F, Nov 2020**)

Q61.

Question	Answer	Mark	Mark scheme	Additional guidance
	4811.20	M1	for full method for one year, eg 4500 × 1.034 (= 4653) oe **OR** for a full method for 2 years, eg 4500 × 1.034^2 oe	Can be implied by 4806 or 9306 Accept 4811.202 and 4811.21
		A1	for 4811.2(0)	

(**Q03 1MA1/2H, Nov 2023**)

Q62.

Question	Answer	Mark	Mark scheme	Additional guidance
	No (supported)	P1	for a conversion with litres and gallons, eg 18 ÷ 4.5 (= 4) or 8 × 4.5 (= 36)	See page at end of mark scheme
		P1	for a conversion with £ and euros, eg 27 × 0.85 (= 22.95) or 40.8 ÷ 0.85 (= 48)	
		P1	for finding the unit price, eg 27 ÷ 18 (= 1.5) **OR** finding proportionality for fuel eg ("36" ÷ 18) (= 2)	May compare cost per gallon or cost in euros May be seen in a calculation or given in a description Accept comparative figures rounded or truncated
		C1	for No with comparative figures, eg No with 20.4 **and** 22.95 **or** No with 1.275 **and** 1.133..	No is implied by eg Wales is cheaper

(**Q27 1MA1/2F, June 2022**)

Q63.

Question	Answer	Mark	Mark scheme	Additional guidance
	No (supported)	P1	for a conversion with litres and gallons, eg 18 ÷ 4.5 (= 4) or 8 × 4.5 (= 36)	See page at end of mark scheme
		P1	for a conversion with £ and euros, eg 27 × 0.85 (= 22.95) or 40.8 ÷ 0.85 (= 48)	
		P1	for finding the unit price, eg 27 ÷ 18 (= 1.5) **OR** finding proportionality for fuel eg ("36" ÷ 18) (= 2)	May compare cost per gallon or cost in euros May be seen in a calculation or given in a description Accept comparative figures rounded or truncated
		C1	for No with comparative figures, eg No with 20.4 **and** 22.95 **or** No with 1.275 **and** 1.133..	No is implied by eg Wales is cheaper

(**Q07 1MA1/2H, June 2022**)

Q64.

Question	Answer	Mark	Mark scheme		Additional guidance
	No (supported)		Working per week	Working per hour	Throughout units and trailing 0s need not be given.
		M1	for 26.4 × 32 (= \$844.80)	for 473.28 ÷ 32 (= £14.79)	
		M1	for "844.8" ÷ 1.796 (= £470.37…) or for 473.28 × 1.796 (= \$850....)	for "14.79" × 1.796 (= \$26.56….) or for 26.4 ÷ 1.796 (= £14.699…)	Accept rounded or truncated figures throughout unless ambiguous.
		C1	for No and correct figures (850… **and** 844.8) **or** 470.37…	for No and correct figures (14.79… **and** 14.699..) **or** 26.56…	"No" may be expressed in words eg "Australia pay is less"

(**Q17 1MA1/3F, Nov 2023**)

Q65.

Question	Answer	Mark	Mark scheme	Additional guidance
(a)	45	P1	for a valid start to the process, eg 180 ÷ 12 (= 15) or 3(.00) ÷ 12 (= 0.25)	Calculations can be in £ or p or a combination for both process marks
		P1	for complete process, eg "15" × 3(.00) or 180 × "0.25"	
		A1	for 45(.00)	
(b)	9	P1	for a valid start to the process, eg cost of each can, eg 7(.00) ÷ 24 (= 0.2916...) or 700 ÷ 24 (= 29.16...) **or** total volume of 24 cans, eg 330 × 24 (= 7920) **or** proportion of m*l*, eg 330 ÷ 100 (= 3.3)	Calculations can be in £ or p
		P1	for complete process, eg $\frac{100}{330}$ × "0. 2916..." (= 0.08838...) or $\frac{100}{330}$ × "29.16..." (= 8.838...) **or** $\frac{100}{\text{"7920"}}$ × 7(.00) (= 0.08838...) or 7(.00) ÷ 24 ÷ $\frac{330}{100}$ (= 0.08838...) or 7(.00) ÷ $\frac{\text{"7920"}}{100}$ (= 0.08838...)	
		A1	for 9	Accept £0.09(p)

(**Q18 1MA1/2F, June 2023**)

Q66.

Question	Answer	Mark	Mark scheme	Additional guidance
	Conclusion (supported)	P1	for process to find 1/10 of 500 eg. 500 ÷ 10 (= 50) **or** 1 – 0.1 (= 0.9) oe	
		P1	(dep) for process to reduce 500 by 1/10 eg. 500 – "50" **or** 500 × "0.9" (= 450)	
		P1	for process to calculate 20% of [Monday sale price] eg. "450" × $\frac{20}{100}$ (= 90) oe **or** for use of 100 – 20 (= 80) or 1 – 0.2 (= 0.8) in relation to [Monday sale price]	
		P1	(dep on P3) for a fully correct process to find the cost of the TV on Tuesday eg. "450" – "90" (= 360) or "450" × "0.8" (= 360)	
		C1	for conclusion (Yes) supported by correct figures.	eg Yes, the TV will cost 360 Yes, he will have 40 over left

(Q17 1MA1/1F, Nov 2020)

Q67.

Question	Answer	Mark	Mark scheme	Additional guidance
	$\frac{3}{10}$	P1	for a process to find three amounts in the correct proportions, eg R = 1, L = 3 × 1 = 3, A = 2 × 3 = 6, **or** R : L : A = $\frac{1}{6}$: 0.5 : 1 oe **or** $L=3R$, $L=\frac{A}{2}$ or $L=3R$, $2L=A$	Relationship could be given in algebraic form or in ratio form, using fractional comparison or using their own figures
		A1	for $\frac{3}{10}$ or equivalent fraction	Award P1 for correct answer not given as a fraction

(Q19 1MA1/2F, Nov 2020)

Q68.

Question	Answer	Mark	Mark scheme		Additional guidance
	1.19	P1	process to find number of small bags that can be filled, eg [3kg] ÷ 150 (= 20) oe		[3kg] must be 3 and zeros only eg 300 Build up methods are allowed to imply process
		P1	for starting a process to work with percentage for cost of box, eg 17.60 × $\frac{35}{100}$ (= 6.16) **or** 100 + 35 (= 135)	works with starting cost per small bag, 17.60 ÷ "20"	Cost per small bag given as £0.88 will imply P1P1
		P1	for full process to work with percentage increase, eg 17.60 × $\frac{"135"}{100}$ (= 23.76)	begins process to work with percentage for a small bag, eg "0.88" × $\frac{35}{100}$ (= 0.308)	
		P1	full process to find selling price for small bag, eg "23.76" ÷ "20" (= 1.188)	full process to find selling price for small bag, "0.88" × $\frac{135}{100}$ (= 1.188) oe	
		A1	cao		

(Q19 1MA1/2F, June 2022)

Q69.

Question	Answer	Mark	Mark scheme	Additional guidance
	600.74	M1	works out decrease for one year, eg $679 \times 4 \div 100$ (=27.16) oe **or** $679 \times (100 - 4) \div 100$ (= 651.84) oe	Implied by 679× 0.12 (=81.48) or 679 × 0.88 (=597.52)
		M1	for compound method, eg $679 \times "0.96"^t$, $t \geq 2$ **or** "651.84" × "0.96" (= 625.76..) or "651.84" × "0.04" (=26.07) **or** for answers in the range 600.71 to 600.74 exclusive	Values may be rounded or truncated
		A1	accept 600.71 **or** 600.72 **or** 600.73 **or** 600.74	If the correct answer is seen and the difference found award M1M1A0

(**Q26 1MA1/2F, June 2022**)

Q70.

Question	Answer	Mark	Mark scheme	Additional guidance
	600.74	M1	works out decrease for one year, eg $679 \times 4 \div 100$ (=27.16) oe **or** $679 \times (100 - 4) \div 100$ (= 651.84) oe	Implied by 679× 0.12 (=81.48) or 679 × 0.88 (=597.52)
		M1	for compound method, eg $679 \times "0.96"^t$, $t \geq 2$ **or** "651.84" × "0.96" (= 625.76..) or "651.84" × "0.04" (=26.07) **or** for answers in the range 600.71 to 600.74 exclusive	Values may be rounded or truncated
		A1	accept 600.71 **or** 600.72 **or** 600.73 **or** 600.74	If the correct answer is seen and the difference found award M1M1A0

(**Q06 1MA1/2H, June 2022**)

Q71.

Question	Answer	Mark	Mark scheme	Additional guidance
	1200	M1	for a fully correct method, eg 240 ÷ 0.2 or 240 × 5 oe	
		A1	cao SC B1 for an answer of 960 or 1440 if M0 scored	

(**Q26 1MA1/1F, June 2023**)

Q72.

Question	Answer	Mark	Mark scheme	Additional guidance
	1200	M1	for a fully correct method, eg 240 ÷ 0.2 or 240 × 5 oe	
		A1	cao	
			SC B1 for an answer of 960 or 1440 if M0 scored	

(**Q07 1MA1/1H, June 2023**)

Q73.

Question	Answer	Mark	Mark scheme	Additional guidance
	35	P1	for process to work out income and outgoings, eg 7.5(0) × 54 (= 405) **and** 100 + 120 + 80 (= 300)	
		P1	for process to find the profit, eg "405" – "300" (= 105) **OR** "405" ÷ "300" (= 1.35) **or** "405" ÷ "300" × 100 (= 135)	
		P1	for a full process to find percentage profit, eg ("105" ÷ "300") ×100 **or** ("1.35" – 1) × 100 **or** "135" – 100	
		A1	cao	

(**Q23 1MA1/2F, Nov 2023**)

Q74.

Question	Answer	Mark	Mark scheme	Additional guidance
	35	P1	for process to work out income and outgoings, eg 7.5(0) × 54 (= 405) **and** 100 + 120 + 80 (= 300)	
		P1	for process to find the profit, eg "405" – "300" (= 105) **OR** "405" ÷ "300" (= 1.35) **or** "405" ÷ "300" × 100 (= 135)	
		P1	for a full process to find percentage profit, eg ("105" ÷ "300") ×100 **or** ("1.35" – 1) × 100 **or** "135" – 100	
		A1	cao	

(**Q02 1MA1/2H, Nov 2023**)

Q75.

Question	Answer	Mark	Mark scheme	Additional guidance
	12	P1	for a beginning process, eg $1800 - (1800 \times 0.56)$ oe or $1800 \times (1 - 0.56)$ (= 792) or $1800 \div 100 \times 56 \div 66$ (= 15.272…) **or** $1800 \div 66$ (=27.272…) **or** [44%] ÷ 66	[44%] is the value they clearly believe to be 44% of 1800
		P1	for a complete process, eg "792" ÷ 66 **or** "27.272…" × (1 – 0.56) oe **or** "27.272…" – "15.272…"	
		A1	cao	

(**Q18 1MA1/2F, June 2024**)

Q76.

Question	Answer	Mark	Mark scheme	Additional guidance
	4400	P1	for start to processes needed to find the investment, eg 2937.14 + 1000 (= 3937.14) **OR** starts to work with algebra, eg $P \times 1.035 - 750$	[value] can be 2937.14 or 2937.14 + 750 or 2937.14 + 1750
		P1	for process to find amount of money at the beginning of 2023 after the first withdrawal, eg "3937.14" ÷ 1.035 (= 3804) or [value] ÷ 1.035 **OR** writes down complete equation, eg $(P \times 1.035 - 750) \times 1.035 - 1000 = 2937.14$	
		P1	for complete process, eg ("3804" + 750) ÷ 1.035 **OR** for a start to the process to solve the equation to find $1.035P - 750$ eg $P \times 1.035 - 750 = \frac{2937.14 + 1000}{1.035}$ or $1.035P - 750 = 3804$ **or** for a start to the process to solve the complete equation eg $1.035^2P - 776.25 = 2937.14 + 1000$ or $1.035^2P - 1000 = 2937.14 + 776.25$ or $1.035^2P = 2937.14 + 776.25 + 1000$	
		A1	cao	A correct answer with no supportive working gets 0 marks

(**Q14 1MA1/3H, June 2024**)

Q77.

<table>
<tr><th>Question</th><th>Answer</th><th>Mark</th><th>Mark scheme</th><th>Additional guidance</th></tr>
<tr><td></td><td>Pack of 8 (supported)</td><td>P1</td><td>for a process (for at least 2 packs) of division of price by quantity
eg at least 2 of 180 ÷ 4 (= 45) or 320 ÷ 8 (= 40) or 600 ÷ 12 (= 50)

OR any other process that could lead to a comparison of 2 packs
eg 180 × 2 (= 360)
or 320 ÷ 8 (= 40) and “40” × 12 (= 480)</td><td>Calculations could be in pounds or in pence

<table>
<tr><th></th><th>4 pack</th><th>8 pack</th><th>12 pack</th></tr>
<tr><td>1</td><td>0.45</td><td>0.40</td><td>0.50</td></tr>
<tr><td>2</td><td>0.90</td><td>0.80</td><td>1.00</td></tr>
<tr><td>4</td><td>1.80</td><td>1.60</td><td>2.00</td></tr>
<tr><td>8</td><td>3.60</td><td>3.20</td><td>4.00</td></tr>
<tr><td>12</td><td>5.40</td><td>4.80</td><td>6.00</td></tr>
<tr><td>16</td><td>7.20</td><td>6.40</td><td>8.00</td></tr>
<tr><td>24</td><td>10.80</td><td>9.60</td><td>12.00</td></tr>
</table>
</td></tr>
<tr><td></td><td></td><td>P1</td><td>for a complete process to give values that can be used for comparison of all 3 packs
eg 180 ÷ 4 (= 45) and 320 ÷ 8 (= 40) and 600 ÷ 12 (= 50)
OR
3.20 ÷ 8 (= 0.40) and “0.40” × 4 (= 1.60) and “0.40” × 12 (= 4.80)
OR
1.80 × 6 (= 10.80) and 3.20 × 3 (= 9.60) and 6.00 × 2 (= 12.00)</td><td>Condone incorrect units.

Pairwise comparison are possible, but check to see that this allows for a decision to be made. Check process.
Assuming correct figures found:
<table>
<tr><th colspan="2">Comparisons</th><th>Conclusion possible</th></tr>
<tr><td>4 vs 8</td><td>8 vs 12</td><td>Yes</td></tr>
<tr><td>4 vs 8</td><td>4 vs 12</td><td>Yes</td></tr>
<tr><td>4 vs 12</td><td>8 vs 12</td><td>No</td></tr>
</table>
</td></tr>
<tr><td></td><td></td><td>A1</td><td>for ‘pack of 8’ and correct values that can be used to compare all 3 packs</td><td>Correct answer with no supportive working scores 0 marks.

Do not allow A mark where inconsistent units would prevent comparison e.g. 0.40p and 45p</td></tr>
</table>

(**Q16 1MA1/1F, June 2024**)

Q78.

Question	Answer	Mark	Mark scheme	Additional guidance
	(M) 18, (K) 15	P1	for start of process, eg $(6x + 1.5)$ **and** $(5x + 1.5)$ **or** $(6x + 1.5)$ **and** $(11x + 3)$ **or** $a + 1.5$ **and** $b + 1.5$ **OR** starts to work with ratio, eg 6 : 5 = 12 : 10	
		P1	for setting up an equation, eg $\frac{6x+1.5}{5x+1.5}=\frac{13}{11}$ **or** $66x + 16.5 = 65x + 19.5$ **or** $\frac{6x+1.5}{11x+3}=\frac{13}{24}$ **or** $144x + 36 = 143x + 39$ **or** $\frac{a}{b}=\frac{6}{5}$ **and** $\frac{a+1.5}{b+1.5}=\frac{13}{11}$ **or** $5a = 6b$ **and** $11a + 16.5 = 13b + 19.5$ oe **OR** for comparing 12 : 10 to 13 : 11 **and** deducing 1 part = 1.5	
		P1	for isolating in terms of x, eg $66x - 65x = 19.5 - 16.5$ **or** $144x - 143x = 39 - 36$ **or** $x = 3$ **or** for eliminating a or b, eg $55a = 66b$ **and** so $66b = 65b + 15$ **OR** for process to find values for M **and** K, eg 12×1.5 **and** 10×1.5	
		A1	cao	

(**Q15 1MA1/2H, June 2022**)

Q79.

Question	Answer	Mark	Mark scheme	Additional guidance
	21	P1	for process to work correctly with initial ratio, eg $120 \div 4 \times 9$ (= 270) **or** 90 + 120 + 60 (= 270)	Can be implied by 90 : 120 : 60 or by a second ratio that totals to 270
		P1	for process to find the value of 1 part in the new ratio, eg "270" ÷ (2 + 5 + 3) (= 27)	
		P1	for process to find both values for Errol, eg ("27" × 3) (= 81) **and** $(120 \div 4 \times 2)$ (= 60)	
		A1	cao	

(**Q26 1MA1/2F, Nov 2023**)

Q80.

Question	Answer	Mark	Mark scheme	Additional guidance
	21	P1	for process to work correctly with initial ratio, eg $120 \div 4 \times 9$ (= 270) **or** 90 + 120 + 60 (= 270)	Can be implied by 90 : 120 : 60 or by a second ratio that totals to 270
		P1	for process to find the value of 1 part in the new ratio, eg "270" ÷ (2 + 5 + 3) (= 27)	
		P1	for process to find both values for Errol, eg ("27" × 3) (= 81) **and** $(120 \div 4 \times 2)$ (= 60)	
		A1	cao	

(**Q05 1MA1/2H, Nov 2023**)

Q81.

Question	Answer	Mark	Mark scheme	Additional guidance
	12.5	M1	for $135 - 120$ (= 15) **or** $\frac{135}{120}$ (= 1.125) **or** $\frac{135}{120} \times 100$ (= 112.5)	
		M1	for "15" ÷ 120 × 100 **or** "112.5" − 100 **or** ("1.125" − 1) × 100	
		A1	cao	

(**Q08 1MA1/2H, Nov 2022**)

Q82.

Question	Answer	Mark	Mark scheme	Additional guidance
	17500	P1	for a process to find the value at the end of year 1, eg 10914.75 ÷ 0.81 (= 13475) **or** 10914.75 ÷ 0.77 (= 14175) **or** for finding the combined multiplier, eg 0.77 × 0.81 (= 0.6237)	
		P1	for a complete process to find the initial value, eg "13475" ÷ 0.77 **or** "14175" ÷ 0.81 **or** 10914.75 ÷ "0.6237"	
		A1	cao	

(**Q10 1MA1/2H, Nov 2022**)

Q83.

Question	Answer	Mark	Mark scheme	Additional guidance
	45.6	P1	for a process to start to work with the ratio, eg 240 ÷ (3 + 5) (= 30) **or** pens = $3n$ and pencils = $5n$ where n is a positive integer	Can work in £ or pence but must be consistent, 90 or 150 imply P1 This mark can be awarded at any stage
		P1	for a complete process to find the number of pens and pencils, eg "30" × 3 (= 90) **and** "30" × 5 (= 150) **OR** for process to find one cost or amount to sell for one item eg [pens] × 9 (= 810) **or** [pens] × 11 (= 990) **or** [pencils] × 6 (= 900) **or** [pencils] × 10 (= 1500) **OR** for process to find the profit for one pen or one pencil eg 11 – 9 (= 2) or 10 – 6 (= 4)	[pens] could be "30" × 3 or their number of pens [pencils] could be "30" × 5 or their number of pencils [pens] , [pencils] ≠ 1
		P1	for a process to find the total cost to buy or the total amount to sell for both, eg [pens] × 9 + [pencils] × 6 (= 1710) **or** [pens] × 11 + [pencils] × 10 (= 2490) **OR** process to find the profit for one item eg [pens] × 11 – [pens] × 9 (= 180) or [pens] × (11 – 9) (= 180) **or** [pencils] × 10 – [pencils] × 6 (= 600) or [pencils] × (10 – 6) (= 600)	180 or 600 or 780 implies P3 [pens] could be "30" × 3 or their number of pens [pencils] could be "30" × 5 or their number of pencils [pens] , [pencils] ≠ 1
		P1	for a complete process to find the profit as a percentage or a decimal, eg $\frac{[2490]-[1710]}{[1710]}\times 100$ **or** $\frac{[2490]-[1710]}{[1710]}$ (= 0.456...) **or** for a process to find the amount to sell as a percentage of the cost eg $\frac{[2490]}{[1710]}\times 100$ (= 145.6...)	[2490] is their amount to sell for both pens and pencils [1710] is their cost of pens and pencils [2490] – [1710] may be [180] + [600]
		A1	answer in the range 45.6 to 45.62	If an answer is given in the range in working and then rounded incorrectly award full marks. A correct answer with no supportive working gets 0 marks

(**Q21 1MA1/3F, Nov 2024**)

Q84.

Question	Answer	Mark	Mark scheme	Additional guidance
	45.6	P1	for a process to start to work with the ratio, eg $240 \div (3 + 5)$ (= 30) **or** pens = $3n$ and pencils = $5n$ where n is a positive integer	Can work in £ or pence but must be consistent, 90 or 150 imply P1 This mark can be awarded at any stage
		P1	for a complete process to find the number of pens and pencils, eg "30" × 3 (= 90) **and** "30" × 5 (= 150) **OR** for process to find one cost or amount to sell for one item eg [pens] × 9 (= 810) **or** [pens] × 11 (= 990) **or** [pencils] × 6 (= 900) **or** [pencils] × 10 (= 1500) **OR** process to find the profit for one pen or one pencil eg 11 – 9 (= 2) or 10 – 6 (= 4)	[pens] could be "30" × 3 or their number of pens [pencils] could be "30" × 5 or their number of pencils [pens] , [pencils] ≠ 1
		P1	for a process to find the total cost to buy or the total amount to sell for both, eg [pens] × 9 + [pencils] × 6 (=1710) **or** [pens] × 11 + [pencils] × 10 (= 2490) **OR** process to find the profit for one item eg [pens] × 11 – [pens] × 9 (= 180) or [pens] × (11 – 9) (= 180) **or** [pencils] × 10 – [pencils] × 6 (= 600) or [pencils] × (10 – 6) (= 600)	180 or 600 or 780 implies P3 [pens] could be "30" × 3 or their number of pens [pencils] could be "30" × 5 or their number of pencils [pens] , [pencils] ≠ 1
		P1	for a complete process to find the profit as a percentage or a decimal, eg $\frac{[2490]-[1710]}{[1710]} \times 100$ **or** $\frac{[2490]-[1710]}{[1710]}$ (= 0.456...) **or** for a process to find the amount to sell as a percentage of the cost eg $\frac{[2490]}{[1710]} \times 100$ (=145.6...)	[2490] is their amount to sell for both pens and pencils [1710] is their cost of pens and pencils [2490] – [1710] may be [180] + [600]
		A1	answer in the range 45.6 to 45.62	If an answer is given in the range in working and then rounded incorrectly award full marks. A correct answer with no supportive working gets 0 marks

(**Q05 1MA1/3H, Nov 2024**)

Q85.

Question	Answer	Mark	Mark scheme	Additional guidance
	Rachel supported	P1	for process to begin to work with percentage for year 1 for Tamsin or Rachel, eg 150000 × 0.04 (= 6000) oe or 150000 × 1.04 (= 156000) oe **or** 160000 × 0.015 (= 2400) oe or 160000 × 1.015 (= 162400) oe	May be implied by 12000 or 4800 or 162000 or 164800
		P1	for process to use compound interest for Tamsin or Rachel, eg "156000" × 0.04 (= 6240) oe or "156000" × 1.04 (= 162240) oe **or** "162400" × 0.015 (= 2436) oe or "162400" × 1.015 (= 164836) oe **or** 1.04^2 (= 1.0816) or 1.015^2 (= 1.030225) **OR** for process to begin to work with percentage increase for Tamsin **and** Rachel for one year, eg 150000 × 1.04 (= 156000) oe **and** 160000 × 1.015 (= 162400) oe	values may be rounded or truncated to 3 sf May be implied by 162000 **and** 164800
		P1	for full process to find figures to compare, eg Tamsin for 2 years **and** Rachel for 2 years eg 150000 × 1.04^2 (= 162240) oe **and** 160000 × 1.015^2 (= 164836) oe **OR** Tamsin for 2 years **and** Rachel for 1 year, eg 150000 × 1.04^2 (= 162240) oe **and** 160000 × 1.015 (= 162400) oe	Other comparisons are possible
		C1	for Rachel with supporting figures, eg 162240 **and** 164836 **or** 162240 **and** 162400 **or** other valid conclusion with supporting comparable figures	Note that the figure used to compare for Rachel can be the figure after 2 years or after 1 year

(**Q27 1MA1/2F, June 2023**)

Q86.

Paper: 1MA1/2H				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
	Rachel supported	P1	for process to begin to work with percentage for year 1 for Tamsin or Rachel, eg 150000 × 0.04 (= 6000) oe or 150000 × 1.04 (= 156000) oe **or** 160000 × 0.015 (= 2400) oe or 160000 × 1.015 (= 162400) oe	May be implied by 12000 or 4800 or 162000 or 164800
		P1	for process to use compound interest for Tamsin or Rachel, eg "156000" × 0.04 (= 6240) oe or "156000" × 1.04 (= 162240) oe **or** "162400" × 0.015 (= 2436) oe or "162400" × 1.015 (= 164836) oe or 1.04^2 (= 1.0816) or 1.015^2 (= 1.030225) **OR** for process to begin to work with percentage increase for Tamsin **and** Rachel for one year, eg 150000 × 1.04 (= 156000) oe **and** 160000 × 1.015 (= 162400) oe	values may be rounded or truncated to 3 sf May be implied by 162000 **and** 164800
		P1	for full process to find figures to compare, eg Tamsin for 2 years **and** Rachel for 2 years eg 150000 × 1.04^2 (= 162240) oe **and** 160000 × 1.015^2 (= 164836) oe **OR** Tamsin for 2 years **and** Rachel for 1 year eg 150000 × 1.04^2 (= 162240) oe **and** 160000 × 1.015 (= 162400) oe	Other comparisons are possible
		C1	for Rachel with supporting figures, eg 162240 **and** 164836 **or** 162240 **and** 162400 **or** other valid conclusion with supporting comparable figures	Note that the figure used to compare for Rachel can be the figure after 2 years or after 1 year

(**Q08 1MA1/2H, June 2023**)

Q87.

Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
	186.15	P1	for correctly finding the area of at least three sections, eg 3 of 11 × 7 (= 77), **or** 9 × 7 (= 63), **or** $\frac{1}{2}$ × 11 × 9 (= 49.5), **or** $\frac{1}{4} \times \pi \times 7^2$ (= 38.4845..)	Note a trapezium for the rectangle and triangle should be classed as two areas. Accept figures rounded or truncated to 1 dp or better throughout.
		P1	for a method to find the number of bags required for one area or a combination of areas eg "77" ÷ 14 (= 5.5) **or** "227.9845.." ÷ 14 (= 16.2846…)	
		P1	for method to work out the total area for all four sections eg "77" + "63" + "49.5" + "38.4845…" (= 227.9845…) or adding the exact number of bags per section for all four sections eg "5.5" + "4.5" + "3.53.." + "2.74.." (= 16.28...)	This mark is dependent upon correct processes seen for all four sections.
		P1	for method to find the cost, eg integer number of bags × 10.95	integer number of bags must come from area ÷ 14 rounded up
		A1	cao	

(**Q04 1MA1/2H, Nov 2022**)

Q88.

Question	Answer	Mark	Mark scheme	Additional guidance
	3.3(0)	P1	for a process to find cost of 1 kg of carrots, eg 1.80 ÷ 3 (= 0.60)	Could work in £ or p for P marks Condone incorrect money notation
		P1	for a start to a process to find cost of 1kg of potatoes, eg 3.45 – 2 × "0.60" (= 2.25) **or** (1.80 + 3.45) ÷ 5 (= 1.05) **OR** for a process to find the cost of 4 kg of carrots, eg "0.60" × 4 (= 2.40)	1 kg of potatoes = (£)0.45 or 45p
		P1	(dep on P2) for a complete process to find the cost of 4 kg of carrots **and** the cost of 2 kg of potatoes, eg "0.60" × 4 (= 2.40) **and** ("2.25" ÷ 5) × 2 (= 0.90) **or** "0.60" × 4 (= 2.40) **and** ("1.05 – "0.60") × 2 (= 0.90)	
		A1	cao	Award 0 marks for a correct answer with no supportive working.

(Q14 1MA1/1F, Nov 2021)

Q89.

Question	Working	Answer	Mark	Notes
		988	P1	for a process to find the amount of oil bought in November, eg 750 ÷ 0.5 (=1500) or 75000 ÷ 50 (=1500)
			P1	for a process to find the amount of oil ordered in February, eg "1500" +1000 − 600 (= 1900)
			P1	(indep) for a process to calculate a 4% increase of their amount of oil, eg or "1900" × 1.04 (=1976) or increase in price eg 1.04 × 50 (=52 or 0.52) or 1.04 × 750 (=780)
			P1	for a complete process to find the total cost of the calculated amount of oil eg "52" × "1900" or "780" × "1900" ÷ "1500"
			A1	Cao

(Q15 1MA1/2F, Nov 2017)

Q90.

Question	Working	Answer	Mark	Notes
		84	M1 A1	for $(372 - 36) \div 4$ cao

(Q08 1MA1/3F, June 2017)

Q91.

Question	Working	Answer	Mark	Notes
2		New York (supported)	P1 P1 C1	for changing between £ and $, eg 1.089×1.46 (= 1.58(9.)) or 2.83÷1.46 (= 1.93(8.)) or between litres and gallons, eg 1.089×3.785 (= 4.12(1.)) or 2.83÷3.785 (= 0.74(7.)) for a complete process to give values that can be used for comparison, eg "1.938..." ÷ 3.785 (= 0.51(2.)) **or** "1.589..."...× 3.785 (= 6.01(7.)) **or** 1.089 × 3.785 = (4.12(1.)) and 2.83 ÷ 1.46 (= 1.93(8.)) for New York and correct comparative values

(Q02 1MA1/3H, Nov 2017)

Q92.

Question	Working	Answer	Mark	Notes
		New York (supported)	P1 P1 C1	for changing between £ and $, eg 1.089×1.46 (= 1.58(9.)) or 2.83÷1.46 (= 1.93(8.)) or between litres and gallons, eg 1.089×3.785 (= 4.12(1.)) or 2.83÷3.785 (= 0.74(7.)) for a complete process to give values that can be used for comparison, eg "1.938..." ÷ 3.785 (= 0.51(2.)) **or** "1.589..."...× 3.785 (= 6.01(7.)) **or** 1.089 × 3.785 = (4.12(1.)) and 2.83 ÷ 1.46 (= 1.93(8.)) for New York and correct comparative values.

(Q20 1MA1/3F, Nov 2017)

Q93.

Question	Working	Answer	Mark	Notes
		126	P1	for working with time,eg 10 – 8(=2) **or** 12 × 8(=96) **or** 12 × 10(=120)
			P1	for working with overtime, eg 12 ÷ 4(=3) **or** 1.25 × "2" (=2.5) **or** 0.25 × "2" (=0.5) **or** 1.25 × 12(=15)
			P1	for a complete process, eg (10 – 8) × overtime rate + 12 × 8 **or** 12 × 10 + "0.5" × 12
			A1	cao

(**Q09 1MA1/1F, June 2017**)

Q94.

Question	Working	Answer	Mark	Notes
		Letters2send (supported)	P1	for the start of a process to find comparable costs at either shop, e.g. 150 ÷ 25 (= 6) or 150 ÷ 30 (= 5), 150 ÷ 10 (= 15), 2.10 ÷ 15 = (=0.14)
			P1	for process to find cost from Letters2send, e.g. (150 ÷ 25) × 3.49 (= 20.94)
			P1	for process to find cost at Stationery World, e.g. (150 ÷ 30) × 2 × 2.10 (= 21)
			C1	for correct conclusion with correct values from each shop (20.94 and 21)
				OR
			P1	for the start of a process to find comparable costs, eg 3.49 ÷ 25 (= 0.1396), 2.10 ÷ 10 (= 0.21), 25 ÷ 3.49 = (7.1...), 2.10 ÷ 15 = (= 0.14)
			P1	for process to take into account the offer at Stationery World, eg buy 30 envelopes pay for 20,
			P1	for complete process to find values that can be used for comparison, eg 30 × 0.13(96) and 2 × 2.10 (= 4.2(0))
			C1	for correct conclusion with correct values from each shop (4.1(88) and 4.2(0))

(**Q10 1MA1/2F, June 2017**)

Q95.

Question	Working	Answer	Mark	Notes
		No (supported)	P1 P1 C1	process to work with either cost of 3 sausages e.g. 3 × 2.30 (=6.9(0)) **or** division of a cost by 3 process to work with costs of at least 3 of bread rolls, bread rolls, ketchup, change, sausages e.g. 2 × 1.50 + 1.60 **or** 1.50 + 1.60 + 0.30, **or** 10 – 1.50 – 1.60 – 0.30 **or** 10 – 1.50 – 1.50 – 1.60 E.g. No **and** (£)5.10 and (£)6.90 No **and** (£)5.40 and (£)6.90 No **and** (£)1.70 No **and** (£)11.50 **or** (£)11.80 **or** shows cost of sausages at £2.30 and cost of any 2 other items is greater than (or equal to) £10 NB can work in £ or p throughout. Condone 5.1 etc

(**Q07 1MA1/1F, June 2017**)

Q96.

Question	Working	Answer	Mark	Notes
(a)	$ £ 5 2.631... 60 31.578... 196 103.157... 2744 1444.21... 2804 1475.789...	2975.79	P1 P1 P1 P1 A1	for process to find total room cost eg 196 × 14 (= 2744) for process to find total wifi cost eg 5 × 12 (= 60) for using exchange rate appropriately (could be used earlier in the question), eg "2804" ÷ 1.90 (= (£)1475.789...) or 1500 × 1.90 (= ($)2850) for process to find the total cost in £, eg "1475.79(..)" + 1500 or in $, eg "2850" + "2804" (= 5654) 2975 to 2976
(b)		Statement	C1	Statement about the total price rising May comment that flights will not change but the rest will rise

(**Q14 1MA1/3F, June 2017**)

Q97.

Question	Working	Answer	Mark	Notes
		Offer 1 (supported)	P1 P1 C1	for a process to find the cost of a number of lessons in Offer 1, eg. 24 × (12 – 1) (= 264) or for a process to find 5% (or 95%) of an appropriate amount, eg. 24 × 0.05 (= 1.20) or 24 × 0.95 (= 22.80) in Offer 2 for a complete process leading to values to be used for comparison, eg. 24 × (12 – 1) (= 264) and 24 × 0.95 × 12 (= 273.60) Offer 1 and correct values, eg. (£)264 and (£)273.6(0) used for comparison

(**Q11 1MA1/3F, Nov 2017**)

Q98.

Question	Working	Answer	Mark	Notes
		65.60	P1	for start in using inverse proportionality, eg 5×4.5 (= 22.5) or $4.5 = \frac{k}{5}$ or $5 \times 4.5 \times 60$ (= 1350) or $\frac{5}{3}$ or $\frac{3}{5}$
			P1	for process to find number of hours for each cleaner today, eg $\frac{22.5}{3}$ (= 7.5)
			A1	for 65.6(0) (SC B2 for 61.5(0))

(Q09 1MA1/2H, Nov 2017)

Q99.

Question	Working	Answer	Mark	Notes
		135	M1	for $450 \div$ "2+3+5" (=45) **or** $\frac{3}{10} \times 450$ (=135) **or** 5 parts are 225 **or** 2 parts are 90 indicated
			A1	Cao

(Q18 1MA1/1F, Nov 2017)