

Q1. (2018)

22	24 × $\frac{3}{4}$ or 24 ÷ 4 (× 3) or 6 (× 3) or 18 or 18 : 6	M1	oe
	30 : 6	A1	
	5 : 1	B1ft	ft their ratio written in simplest form
	Additional Guidance		
	15 : 3 or 10 : 2		M1A1B0
	answer 1 : 5 answer 6 : 30		M1A0B1ft M1A0B0ft
	18 : 24 then 3 : 4		M1A0B1ft

Q2. (2018)

24	405 ÷ (4 + 11) or 405 ÷ 15 or 27 or build up in 15s to 405	M1	Clear intention to divide Do not accept 15 + 405 unless clearly recovered
	their 27 × 4 or 108 or their 27 × 11 or 297	M1dep	
	108 and 297	A1	
	Additional Guidance		
	297 and 108		M1M1A0
	Answer 108 : 297		M1M1A1
	Partial build up using ratios from 4 : 11 (eg 104 : 286) is 0 marks unless correct answer achieved		M0M0A0
	If 405 is divided by 10 and then divided by 5 this is M0 unless 405 ÷ 15 was clearly seen first, then it is M1M0A0		

Q3. (2019)

17(a)	28 : 12 or 14 : 6 or 56 ÷ 8 and 24 ÷ 8 (may be done in stages) or 3 and 7 seen	M1	
	7 : 3	A1	

Q4. (2019)

17(b)	1.25 : 1	B1	oe eg $\frac{5}{4}$: 1
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Q5. (2019)

17(c)	180 ÷ (1 + 9) or 18 or 162	M1	
	18 and 162	A1	
	Additional Guidance		
	162 and 18		M1A0
	Build-up method will score 2 or 0 eg 1 : 9 2 : 18 does not score M1 for 18		

Q6. (2020)

Q	Answer	Mark	Comments
5	20 or 12 or 10 : 6	B1	oe ratio check diagram for area counting to 20 or 12
	5 : 3	B1ft	ft if B0 awarded, a correct and full simplification of any unsimplified ratio condone $\frac{5}{3} : 1$ or $1.6 : 1$ or $1 : \frac{3}{5}$ or $1 : 0.6$ SC1 3 : 5
	Additional Guidance		
	5 : 3 with no working		B2
	Ignore any units given with the answer		
	18 : 16 = 9 : 8 (perimeter)		B0B1ft
	Poor unit notation can score a maximum of B1 unless recovered 20 ² or 12 ² or 5 ² : 3 ²		B1B0

Q5. (2020)

16 The table shows information about how 150 students travel to school.

	Walk	Bus	Car	
Girls	22	33	17	Total = 72
Boys	24	41	13	Total = 78

Q	Answer	Mark	Comments
16(a)	$\frac{11}{36}$	B2	B1 $\frac{22}{72}$ or 11 out of 36 or correctly simplified proper fraction that originally had a denominator >13
	Additional Guidance		
	Condone 11 out of 36 with $\frac{11}{36}$ (together on the answer line)		B2
	$\frac{11}{36}$ in working and 11 out of 36 on answer line		B1
	$\frac{22}{150} = \frac{11}{75}$		B1
	$\frac{2}{4} = \frac{1}{2}$		B0
	22 out of 72 with no other working		B0
	22 out of 72 with $\frac{22}{72}$		B1
	11 : 36		B0

Q6. (2021)

Q	Answer	Mark	Comments
16	1 : 3 : 2	B2	B1 5 : 15 : 10 oe ratio not in its simplest form or their 3-term ratio written in its simplest form
	Additional Guidance		
	5 : 15 : 30 simplified to 1 : 3 : 6		B1
	5 15 30 simplified to 1 : 3 : 6		B0

Q7. (2022)

Q	Answer	Mark	Comments
	Alternative method 1: using different time periods		
	450 ÷ 30 or 15 or 250 ÷ 10 or 25	M1	oe for any section of the basic rate or the overtime rate eg $\frac{450-150}{30-10}$
	15 and 25	A1	implied by any ratio equivalent to 3 : 5 do not allow as a ratio in the wrong order eg 25 : 15
	3 : 5 or $\frac{3}{5} : 1$ or $1 : \frac{5}{3}$	B1ft	oe fully simplified ft full simplification of their two values
22	Alternative method 2: using equal time periods		
	Four correct readings from equal time periods of at least 5 hours from the two sections of the graph	M1	eg at 5 and 10 hours and at 35 and 40 hours if a reading from 30 is used, there may only be 3 readings a reading of 0 from 0 may be implied
	15 and 25 or correct totals for their equal time periods	A1	eg 10 hours = 150 and 10 hours = 250 implied by any ratio equivalent to 3 : 5 must not be seen as a ratio in the wrong order eg 250 : 150
	3 : 5 or $\frac{3}{5} : 1$ or $1 : \frac{5}{3}$	B1ft	oe fully simplified ft full simplification of their two values

22 cont	Additional Guidance	
	In alt 2, only three readings are needed if a reading from 30 hours is included in both time periods or a reading of 0 is used eg readings of 300 from 20, 450 from 30 and 700 from 40	M1
	Readings from 10, 20, 30 and 40 should be 150, 300, 450 and 700 For readings from other numbers of hours not giving a multiple of £10 allow the multiple of 10 above or below the reading or any value between, which can then be used to score all three marks eg allow [220, 230] for a reading at 15 hours eg alt 1 readings of 70 at 5 hours, 380 at 25 hours, 450 at 30 hours and 700 at 40 hours, followed by hourly rates of 15.50 and 25 and an answer of 31 : 50 eg alt 2 readings of 370 at 25 hours, 450 at 30 hours, 580 at 35 hours and 700 at 40 hours, followed by totals of 80 and 120 or hourly rates of 16 and 24 and an answer of 2 : 3	M1A1B1ft M1A1B1ft
	For $1\frac{2}{3}$ allow 1.67 or better with correct rounding	
	450 : 250 = 45 : 25 does not get the mark for 25, but gets the final mark if simplified to 9 : 5	
	Ignore units throughout eg answer £3 : £5	M1A1B1
	15 : 25	M1A1B0
	25 : 15 or 25 : 10 not simplified	M1A0B0
	25 : 15 with answer 5 : 3 or 25 : 10 with answer 5 : 2	M1A0B1ft
	Answer 5 : 3 without working implies	M1A0B1ft
	15 : 17.5	M1A0B0
	15 : 17.5 followed by 6 : 7	M1A0B1ft
	20 : 25	M1A0B0
	20 : 25 followed by 4 : 5	M1A0B1ft
	3 : 5 in working with answer 1.5 : 2.5	M1A1B0
	30 : 10 = 3 : 1	M0A0B1ft

Q8. (2023)

Q	Answer	Mark	Comments
19	$\frac{5}{6} \times 96$ or 80	M1	oe eg $96 \div 6 \times 5$ implied by 176
	$\frac{1}{4} \times$ their 80 or 20	M1dep	oe eg $80 \div 4$
	$\frac{2}{3} \times 96$ or 64	M1	oe eg $96 \div 3 \times 2$ accept 0.66 or better for $\frac{2}{3}$
	84(.00)	A1	SC2 100.8(0) or [77.32, 77.34] condone incorrect money notation eg 84.0 or 84.00p
	Additional Guidance		
	SC2 for 100.8(0) is from misreading as Andrew gets £96		
	SC2 for [77.32, 77.34] is from $\frac{2}{3}$ of 80 plus $\frac{1}{4}$ of 96		
	Do not accept ' $\frac{5}{6}$ of 96' or ' $\frac{1}{4}$ of 80' or ' $\frac{2}{3}$ of 96' for M marks unless accompanied by a correct method or value		

Q9. (2024)

Q	Answer	Mark	Comments
13(a)	$240 \div (1 + 3)$ or $240 \div 4$ or 60	M1	oe
	180	A1	
	Additional Guidance		
	$240 \div 4$ and $240 \div 3$ is choice unless the answer comes from $240 \div 4$		
	60 : 180 or 180 : 60 with no answer chosen		M1A0