Mark scheme

End of Unit assessments are 30 marks, so you should allow 35 minutes.

The following marks are awarded for each question.

В	Unconditional accuracy mark	
М	Method mark – the correct method must be shown but there may be an arithmetic error	
A	Accuracy mark – unless the question specifies that working must be shown then the sight of the correct answer implies the award of full marks (unless the answer clearly comes from incorrect working)	
С	Communication mark	
Р	Process mark to show correct process for problem solving. Any other process of a similar standard to achieve an accurate result is acceptable to achieve this mark	
ft	Incorrect values may be followed through from one step to the next provided that the correct method is seen in each step and the only errors are arithmetic. This is shown in mark schemes by putting a number in inverted commas	
oe	Or equivalent method or answer	
cao	Correct answer only	

Non	Non-calculator			
Q	Answer	Mark	Comment	
1	3:5	M1	÷ 2 seen	
		A1	сао	
2a	48	B1	сао	
2b	5	M1	60 ÷ 12	
		A1	сао	
3a	Any 3 squares shaded	B1	сао	
3b	70	B1	сао	
4a	175	B1	сао	
4b	525	M1	"175" × 3 or 350 ÷ 4 × 6 oe	
		A1	сао	
5	Full explanation with correct figures	M1	12 : 18 = 2 : 3 or 1 : 1.5	
			or 3 : 6 = 1 : 2	
		C1	Full explanation from correct figures	
			e.g. 2 : 3 ≠ 1 : 2	
6	30	M1	6 ÷ 20 × 100 oe	
		A1	сао	

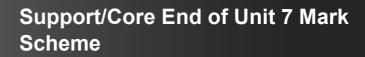
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7	18	M1	300 ÷ 200 (= 1.5) oe or 12 ÷ 200 (= 0.06) oe
		M1	"1.5" × 12 oe or "0.06" × 300 oe
		A1	сао
8	$\frac{3}{4}$	B1	Accept 0.75 or 75%

	Calculator			
Q	Answer	Mark	Comment	
9a	$\frac{1}{2}$	M1	$\frac{22}{44}$ or $\frac{11}{22}$ or $\frac{2}{4}$	
		A1	сао	
9b	50	B1	сао	
10a	4:5	B1	сао	
10b	$\frac{4}{9}$	B1	ое	
11	5:3:7	M1	15 : 9 : 21 or 10 : 6 : 14	
		A1	сао	
12	122.5	M1	98 ÷ 4 (= 24.5) or 5 ÷ 4 (= 1.25)	
		M1	"24.5" × 5 or "1.25" × 98	
		A1	сао	
13	56	M1	$\frac{8}{8+1}$ × 63 oe	
		A1	сао	

Non-calculator			
Question	Торіс		Marks
1	Reduce a ratio to its simplest form.	3rd	2
2a	Use a ratio to find one quantity when the other is known.	4th	1
2b	Use a ratio to find one quantity when the other is known.	4th	2
3a	Use ratio notation.	4th	1
3b	Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.	4th	1
4a	Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.	5th	1
4b	Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.	5th	2

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5	Reduce a ratio to its simplest form.	5th	2
6	Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.	6th	2
7	Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.	6th	3
8	Understand the relationship between fractions and ratios, write fractions as ratios and ratios as fractions.	6th	1

Calculator			
Question	Торіс		Marks
9a	Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.	4th	2
9b	Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.	4th	1
10a	Use ratio notation.	4th	1
10b	Understand the relationship between fractions and ratios, write fractions as ratios and ratios as fractions.		1
11	Reduce ratios to their simplest form, including three-part ratios.	5th	2
12	Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.	6th	3
13	Solve problems involving simple ratios, i.e. unequal sharing and grouping using knowledge of fractions and multiples.	6th	2

Marks to Steps conversion table

The table below converts marks to a step on the Pearson progression scale. For more information on Progress & Assess please see the <u>progression website</u>.

Mark boundary	Step
0	U
1–3	2nd
4–8	3rd
9–14	4th
15–20	5th
21–30	6th