

Writing and Simplifying Ratio Past Paper Questions (MS)



Q1.

Question	Answer	Mark	Mark scheme	Additional guidance
	3 : 5	B1	for 3 : 5 or for any other equivalent ratio	

Q2.

Paper 1MA1: 1F			
Question	Working	Answer	Notes
		1 : 3	M1 for stating a ratio eg 28 : 84 or 1 : 3 incorrectly stated or 3:1 A1 cao

Q3.

Question	Answer	Mark	Mark scheme	Additional guidance
	30:1	M1	for stating 450 : 15 oe or 450 ÷ 15 (=30) oe or 1 : 30	90 : 3
		A1	cao	Ignore units throughout.

Q4.

Question	Working	Answer	Mark	Notes
		1 : 10	M1 A1	for 12 : (20 × 6) oe or 10 : 1 or 1 with 10 in incorrect notation cao

Q5.

Question	Working	Answer	Mark	Notes
(a)		2:3	1	B1 cao
(b)		$\frac{3}{5}$	2	M1 ft for adding the numbers in their ratio to get an acceptable total AND using this as their denominator eg 4 + 6 = 10 or 2 + 3 = 5 A1ft $\frac{3}{5}$ oe



Q6.

Question	Answer	Mark	Mark scheme	Additional guidance
	1 : 3	M1	for $\frac{1}{4} : \frac{3}{4}$ oe OR for any correct un-simplified ratio, eg 25 : 75	Ignore 'units' such as 1 nuts : 3 no nuts 1 : 3n gets M1A0
		A1	cao SC: B1 for an answer of 3 : 1 or $1 : \frac{1}{3}$ if M0 scored	

Q7.

Question	Answer	Mark	Mark scheme	Additional guidance
(a)	$\frac{3}{7}$	B1	oe	Accept a fraction equivalent to $2\frac{1}{2}$, eg. $1 : \frac{30}{12}$ 2.5 alone gets M1A0
(b)	1 : 2.5	M1	for appropriate method shown eg $30 \div 12 (= 2.5)$ or for a method that involves simplification of 12 : 30 approaching $1 : n$, eg. 4 : 10 or 6 : 15 or 2 : 5 or for $2.5 : 1$ or $2\frac{1}{2} : 1$	
		A1	for 1 : 2.5 or $1 : 2\frac{1}{2}$ or for $n = 2.5$	

Q8.

Question	Working	Answer	Mark	Notes
		5 : 2 : 10	P1	for process to calculate total for quiz or total of membership fees eg. $13 \times 5 + 35$ (=100), $25 \times 20 (=500)$
			P1	for complete process to write (correct) figures as a ratio, eg 250 : 100 : 500 oe in any order (condone inclusion of units or words)
			A1	cao



Q9.

PAPER: 5MB1F_01					
Question	Working	Answer	Mark	Notes	
(a)		4 : 3	2	M1 for 20 : 15 or 3 : 4 A1 cao	
(b)		$35 - x - y$	2	M1 for $20 - x$ or $15 - y$ A1 for $20 - x + 15 - y$ oe	

Q10.

Question	Answer	Mark	Mark scheme	Additional guidance
	2	P1	for a process to find the number of men, eg. $(60 \div 2) \div 3 (= 10)$	
	(supported)	P1	for a process to find the number of children, eg. $60 - "30" - "10" (= 20)$	$60 \div 3 = 20$ scores no marks.
		P1	for a start of a process to find the value of n , eg. $("20" : "10") \div 5$ or $20 : 10 = 10 : 5$ or $"20" \div "10"$	Any ratio must come from correct processes to find the number of children and the number of men
		A1	for 2 with supportive working	Award 0 marks for 2 with no correct supportive working Award full marks for 2 : 1 given as final answer from correct supportive working

Q11.

Question	Answer	Mark	Mark scheme	Additional guidance
	4 : 1 : 2	M1	for start to express the statements as a ratio eg 4 : 1, 1 : 4, 1 : 2 or 2 : 1 with clear and correct link to Azmol, Ryan, Kim OR as algebraic expressions, two of $4x$, x and $2x$ eg $4x : x$, $1x : 4x$, $1x : 2x$ or $2x : 1x$ with clear and correct link to Azmol, Ryan, Kim	Allow any equivalent ratio, integers only May be seen as part of an incorrect answer. May be seen as integer multiples of these algebraic expressions. Any letter may be used.
		A1	4 : 1 : 2 oe	Accept 8 : 2 : 4 or equivalent ratios involving integers
		(SCB 1)	3 integer numbers in correct ratio but no ratio notation, eg 4, 1, 2 or 20, 5, 10)	