

Topic Test 1 Mark Scheme

Basic number, fractions and decimals - Higher

Q	Answer	Mark	Comments
1	$\frac{1}{5}$	B1	
2	4.1	B1	
3	1.05	B1	
4	3.772	B2	B1 0.4715 × 8 or digits 3772 eg 0.3772
5	$\frac{5}{3}$ (x) $\frac{21}{5}$ or $\frac{105}{15}$ or $\frac{21}{3}$ or $\frac{35}{5}$	M1	Converts both fractions to improper with at least one correct
	7	A1	
6	Any two numbers rounded to 1 significant figure 200, 4 or 0.1	M1	
	200 and 4 and 0.1 or $\frac{800}{0.1}$	M1	
	8000	A1	Must come from $\frac{200 \times 4}{0.1}$

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7	$1 - \frac{5}{8}$ or $\frac{3}{8}$ or $1 - \frac{9}{20}$ or $\frac{11}{20}$ or $\frac{5}{8} + \frac{9}{20}$ or $\frac{43}{40}$	M1	oe
	$\frac{9}{20}$ – their $\frac{3}{8}$ or $\frac{5}{8}$ – their $\frac{11}{20}$ or their $\frac{43}{40}$ – 1	M1	oe
	$\frac{3}{40}$	A1	oe

8	$240 \div \frac{2}{5}$ or 600	M1	oe 240 ÷ 2 × 3 scores M2
	their 600 – 240 or 360	M1	
	their 360 ÷ 4 or 90	M1	Condone 600 ÷ 4
	270	A1	SC3 450 SC2 150

Q	Answer	Mark	Comments
9	Alternative method 1		
	10x = 2.33... and 9x = 2.1	M1	oe 100x = 23.33... and 99x = 23.1
	$\frac{21}{90}$	M1	oe fraction $\frac{231}{990}$
	$\frac{7}{30}$	A1ft	ft correct simplification of fraction with M1 scored
	Alternative method 2		
	0.2 + 0.033... = $\frac{2}{10}$ + 0.033... and 100x = 3.33... and 99x = 3.3	M1	oe
	$\frac{198}{990} + \frac{33}{990}$ or $\frac{231}{990}$	M1	oe fractions
	$\frac{7}{30}$	A1ft	ft correct simplification of fraction with M1 scored
	Alternative method 3		
	$\frac{2}{10} + \frac{3}{90}$	M1	
	$\frac{18}{90} + \frac{3}{90}$ or $\frac{21}{90}$	M1	
	$\frac{7}{30}$	A1ft	ft correct simplification of fraction with M1 scored
	Alternative method 4		
	$10x = 2.33... = \frac{7}{3}$	M1	
	$\frac{7}{3} \div 10$	M1	
	$\frac{7}{30}$	A1	