Paper: 1MA1/1H				
Question	**Working**	**Answer**	**Mark**	**Notes**
8 **Q1**		0.246, 0.$\dot{2}$4$\dot{6}$ 0.2$\dot{4}$$\dot{6}$, 0.24$\dot{6}$	M1 A1	for correct use of recurring symbol eg 0.2$\dot{4}$$\dot{6}$ = 0.24646… **or** 3 terms in the correct relative position cao

Paper: 1MA1/1H				
Question	**Working**	**Answer**	**Mark**	**Notes**
15 **Q2**		Proof to reach $\frac{24}{55}$	M1	for $100x = 43.636\ldots$ $(43.\dot{6}\dot{3})$ **or** $10x = 4.3636\ldots$ $(4.\dot{3}\dot{6})$ and $1000x = 436.36\ldots$ $(436.\dot{3}\dot{6})$
			M1	(dep) for finding difference that would lead to a terminating decimal
			A1	for completing algebra to reach $\frac{24}{55}$

Paper: 1MA1/3H				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
15	Proof	M1	for $10x = 7.333\ldots$ $(7.\dot{3})$ and for finding difference that would lead to a terminating decimal	$100x$ and $1000x$, etc could also be used
Q3		A1	for completing algebra to reach $\frac{11}{15}$	

Paper: 1MA1/1H				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
13 **Q4**	Explanation	C1	explanation **Acceptable examples** he should have used $100(x)$ rather than $10(x)$ he should have used $1000x$ and $10x$ Ted's working does not eliminate the recurring decimals the recurring numbers after the decimal point have to be in the same sequence he should have multiplied by 100 to subtract easier after the decimal point he should have multiplied by 100 because two numbers are recurring **Not acceptable examples** it is not correct the method is not complete he should have used $1000x$ he should have multiplied by 100 he should have multiplied by 100 and then done $100x - 10x$ to give 43/90	

Paper: 1MA1/1H				
Question	Answer	Mark	Mark scheme	Additional guidance
16 **Q5**	Proof with $\dfrac{127}{495}$	M1 M1 C1	0.25656... **or** 0.2 + 0.05656.. or (10 × 0.2$\dot{5}\dot{6}$ =) 2.$\dot{5}\dot{6}$ or 2.5656… or (100 × 0.2$\dot{5}\dot{6}$ =) 25.$\dot{6}\dot{5}$ or 25.6565…or (1000 × 0.2$\dot{5}\dot{6}$ =) 256.$\dot{5}\dot{6}$ or 256.5656… for finding two correct recurring decimals that when subtracted would result in a terminating decimal or integer, eg. 256.5656….. – 2.5656….. or 25.6565….. – 0.25656….. or 256.$\dot{5}\dot{6}$ – 2.$\dot{5}\dot{6}$ or 25.$\dot{6}\dot{5}$ – 0.2$\dot{5}\dot{6}$ **or** for $\dfrac{254}{990}$ or $\dfrac{25.4}{99}$ full proof seen with $\dfrac{127}{495}$	

Paper: 1MA1/1H				
Question	Answer	Mark	Mark scheme	Additional guidance
15 Q6	$\dfrac{414}{990}$	M1	for ($x =$) 0.41818… or ($10x =$) 4.$\dot{1}\dot{8}$ or 4.1818… or ($100x =$) 41.$\dot{8}\dot{1}$ or 41.818… or ($1000x =$) 418.$\dot{1}\dot{8}$ or 418.18…	
		M1	for using two recurring decimals with a terminating decimal difference, eg. ($1000x – 10x =$) 418.$\dot{1}\dot{8}$ − 4.$\dot{1}\dot{8}$ or 418.18… − 4.1818… (= 414)	Accept ($100x – x =$) 41.$\dot{8}\dot{1}$ – 0.4$\dot{1}\dot{8}$ or 41.818... – 0.41818... (= 41.4)
		A1	for $\dfrac{414}{990}$ oe, eg $\dfrac{23}{55}$	$\dfrac{41.4}{99}$ must be simplified to gain the accuracy mark

Paper: 1MA1/2H				
Question	Answer	Mark	Mark scheme	Additional guidance

14
 	
Q7
	Shown	M1
		
		M1
		
		A1
			for (x =) 1.0622… or (10x =) 10.622… or (100x =) 106.22… or (1000x =) 1062.2…
			OR
			for (x =) 0.0622… or (10x =) 0.622… or (100x =) 6.22… or (1000x =) 62.2…
			
			(dep M1) for a method using two recurring decimals that leads to a terminating decimal difference, using correct multiples of x
			eg (1000x – 100x =) 1062.2… − 106.22.. (= 956) or $\dfrac{956}{900}$
			
			OR
			(dep M1) for a method using two recurring decimals that leads to a terminating decimal difference, using correct multiples of x
			eg (1000x – 100x =) 62.2… − 6.22... (= 56) or $\dfrac{56}{900}$
			
			for completing algebra to $1\dfrac{14}{225}$
				Use of recurring notation acceptable throughout.

Paper: 1MA1/1H

Question	Answer	Mark	Mark scheme	Additional guidance
12 **Q8**	$\dfrac{116}{990}$	M1	for $(x =)$ 0.11717... **or** $(10x =)$ 1.1̇7̇ or 1.1717... **or** $(100x =)$ 11.7̇1̇ or 11.7171... **or** $(1000x =)$ 117.1̇7̇ or 117.1717...	

		M1	(dep M1) for a method using two recurring decimals that leads to a terminating decimal difference, using correct multiples of x
			
			eg $(1000x - 10x =)$ 117.1̇7̇ – 1.1̇7̇ $(= 116)$
			            or 117.1717... – 1.1717... $(= 116)$
				Accept
				$(100x - x =)$ 11.7̇1̇ – 0.117̇
				  or 11.7171... – 0.11717... $(= 11.6)$

		A1	for $\dfrac{116}{990}$ oe, eg $\dfrac{58}{495}$	$\dfrac{11.6}{99}$ must be written in the form $\dfrac{a}{b}$ where a and b are integers to gain the accuracy mark

Paper: 1MA1/2H				
Question	Working	Answer	Mark	Notes
16 **Q9**			M1 M1 C1 M1 M1 C1	for the start of a method to convert 0.22.. to a fraction, eg $10y = 2.22..$ or $(y=) \frac{2}{9}$ for the start of a method to convert 0.13636... to a fraction, $10x = 1.3636..$ or $100x = 13.6363…$ or $1000x = 136.3636..$ or $(x=) \frac{13.5}{99}$ or $(x=) \frac{135}{990}$ for correct arithmetic and concluding the proof OR for $0.1\dot{3}\dot{6} \times 0.\dot{2} = 0.\dot{0}\dot{3} (= z)$ for complete method to find two appropriate recurring decimals the difference of which is a rational number, eg. $100z = 3.0303…, (z =) 0.0303…$ or $\frac{3}{99}$ for correct arithmetic and concluding the proof