Q1. (2017)

15	3	B1	

Q2. (2019)

19	$\frac{1}{9}$	B1	

Q3. (2020)

Q	Answer	Mark	Comments
26(a)	$\frac{14}{\sqrt{7}} \times \frac{\sqrt{7}}{\sqrt{7}}$ or $\frac{14\sqrt{7}}{7}$	M1	
	$2\sqrt{7}$	A1	do not award if further work eg $\sqrt{14}$
	Additional Guidance		
	Correct answer with no working		M1A1

Q4. (2021)

Question	Answer	Mark	Comments
13	5 ÷ 6 attempted with at least 0.8 shown and a carry of any integer from 1 to 7 or $0.1\dot{6} \times 5$ or $1.\dot{6} \div 2$ or $1 - 0.1\dot{6}$	M1	oe calculation involving a correct recurring decimal which would give an outcome of $0.8\dot{3}$
	$0.8\dot{3}$	A1	condone any number of 3s immediately before the recurring 3
	Additional Guidance		
	Condone other recurring symbols or repeated dots eg 0.83^{r} or 0.83…		M1A1

Q5. (2022)

Q	Answer	Mark	Comment
22	**Alternative method 1**		
	$0.2\dot{3}$ or 0.23…	M1	implied by $10x = 2.33…$
	$10x = 2.33…$ (and $x = 0.23…$)	M1dep	oe multiplication by a power of 10 any letter
	$10x - x = 2.1$ or $9x = 2.1$	M1dep	oe subtraction to eliminate recurring digits eg $100x - 10x = 23.3… - 2.3…$ or $90x = 21$
	$\frac{21}{90}$	A1	oe fraction eg $\frac{23.1}{99}$
	$\frac{7}{30}$	A1ft	ft full simplification of their $\frac{21}{90}$ with all M marks awarded

Q6. (2023)

Q	Answer	Mark	Comments
23	**Alternative method 1 – subtracting powers of 10 algebraically**		
	Denotes the given recurring decimal by a letter and multiplies by one of 10, 100, etc	M1	eg $10x = 1.33\ldots$ or $100x = 13.3\ldots$
	Denotes the given recurring decimal by a letter and multiplies by one or two of 10, 100, etc and subtracts accordingly	M1dep	eg $10x - x = 1.333\ldots - 0.1333\ldots$ or $9x = 1.2$ or $\frac{1.2}{9}$ or $100x - x = 13.333\ldots - 0.1333\ldots$ or $99x = 13.2$ or $\frac{13.2}{99}$ or $100x - 10x = 13.333\ldots - 1.333\ldots$ or $90x = 12$ or $\frac{12}{90}$
	$\frac{2}{15}$	A1	
	Alternative method 2 – subtracting powers of 10 numerically		
	Multiplies the given decimal by one of 10, 100, etc	M1	eg $0.1\dot{3} \times 10 = 1.\dot{3}$
	Multiplies the given decimal by one or two of 10, 100, etc and subtracts appropriately in fraction form	M1dep	eg $0.1\dot{3} \times 100 = 13.\dot{3}$ and $0.1\dot{3} \times 10 = 1.\dot{3}$ and $\frac{13.3 - 1.3}{100 - 10}$ or $\frac{12}{90}$
	$\frac{2}{15}$	A1	