Q1 June 2018

1		8	B1	cao

Q2 June 2020

4	25	B1	cao

Q3 June 2022

5	40	B1	cao

Q4 June 2024

15	525	M1	for method to find the interest after one year, eg 3500 × 2.5 ÷ 100 (= 87.5) oe **or** 0.025 × 6 (= 0.15) oe **or** for a complete method, eg 3500 × 2.5 × 6 ÷ 100 oe **or** for 4025 **or** 2975	May be implied by, eg 3587.5(0) Award M1 for 3500 × 1.025^n
		A1	cao	

Q5 June 2024

18	12	P1	for a beginning process, eg 1800 – (1800 × 0.56) oe or 1800 × (1 – 0.56) (= 792) or 1800 ÷ 100 × 56 ÷ 66 (= 15.272…) **or** 1800 ÷ 66 (=27.272…) **or** [44%] ÷ 66	[44%] is the value they clearly believe to be 44% of 1800
		P1	for a complete process, eg "792" ÷ 66 **or** "27.272…" × (1 – 0.56) oe **or** "27.272…" – "15.272…"	
		A1	cao	

Q6 Nov 2018

11	4	M1	for $\frac{30}{100}\times 80$ (=24) oe or for 104	
		M1	(dep) for 28 – "24" or 108 – 104	Numbers in subtraction may be reversed
		A1	for 4 or –4	

Q7 Nov 2018

15	2.5	M1	for $(R=)\frac{100I}{PT}$ **or** 600×5 (= 3000) **or** 75 × 100 (= 7500) **or** 75 ÷ 5 (= 15) **or** 75 ÷ 600 (= 0.125)	
		M1	for $\frac{75\times 100}{600\times 5}$ oe **OR** $\frac{"15"}{600}$ (= 0.025) **or** "0.125" ÷ 5 (= 0.025) **or** 1.025	Calculations may be done in stages. May work in decimals or in percentages
		A1	cao	

Q8 Nov 2018

18	(a)	explanation	C1	explanation eg should be 1.03, this is 30% (not 3%) **Acceptable examples** Because 1.3 is 130% He is increasing it by 30% 1.3 means 1.30, not 1.03 He needs to put a 0 in front of the 3 1.3 is the wrong decimal He should multiply by 0.03 3% is 0.03, (not 1.3) His answer should be 154.5 He is meant to increase it by 4.5, not by 45 **Not acceptable examples** Because he is increasing by 130%, not 3% He needs to find 1% and then times it by 3
	(b)	(150 ×) 0.97 = 145.5	B1	for 0.97 (or $\frac{97}{100}$ or 97%) and 145.5

Q9 Nov 2019

3	23	B1	cao

Q10 Nov 2019

16	243	M1	for 1.8 ÷ 100 × 4500 oe (= 81) **or** for a complete method eg 4500 ×1.8 × 3 ÷ 100 oe **or** for 4743 **or** 4257	Award M1 for 4500 × 1.018^n
		A1	cao	

Q11 Nov 2019

20	Shown (supported)	M1	for substitution eg 4 × 110 + 12
		A1	for 452
		M1	(dep M1) for method to find value(s) needed for comparison eg $\frac{"452"-442}{442} \times 100$ **OR** $\frac{5}{100} \times 442$ oe (= 22.1) **and** "452" – 442 (= 10) **OR** $\frac{5}{100} \times 442 + 442$ oe (= 464.1) **and** "452"
		C1	shown with correct comparable values eg 2.2(6...)(%) **OR** 22.1 **and** 10 **OR** 452 **and** 464.1

Q12 Nov 2020

4	25	B1	cao

Q13 Nov 2021

1	$\frac{31}{100}$ oe	B1	for $\frac{31}{100}$ or any equivalent fraction	Ignore any attempt at simplification of $\frac{31}{100}$

Q14 Nov 2022

2	$\frac{37}{100}$	B1	oe fraction

Q15 Nov 2022

11	130	P1	process to find the total number of children, eg 214 – 14 (= 200)
		P1	process to find the number of children wearing a hat, eg "200" × 35 ÷ 100 (= 70) **or** process to find the multiplier for the percentage of children not wearing a hat, eg (100 – 35) ÷ 100 (= 0.65)
		P1	for full process to find the number of children not wearing a hat, eg "200" – "70" **or** "200" × "0.65" **or** 214 – "70" – 14
		A1	cao

Q16 Nov 2022

23	7318.15	M1	for a correct first step eg working out increase for one year 7000 × (100 + 3) ÷ 100 (= 7210) oe **or** 7000 × 3 ÷ 100 (= 210) oe **or** find the multiplier for both years eg (100 + 3) ÷ 100 × (100 + 1.5) ÷ 100 (=1.04545)	7315 or 315 implies M1
		M1	for a compound method, eg 7000 × (100 + 3) ÷ 100 × (100 + 1.5) ÷ 100 oe **or** "7210" × 1.5 ÷ 100 or (= 108.15) oe	318.15 implies M1M1A0
		A1	cao	

Q17 Nov 2023

5	120	B1	cao

Q18 Nov 2023

15	60.48	P1	for a beginning process, eg 72 ÷ 100 × 120 (= 86.4) **OR** 72 ÷ 100 × 30 ÷ 100 (= 0.216)	
		P1	for process to use both percentages, eg [86.4] – ([86.4] × 30 ÷ 100) **or** [86.4] × ((100 – 30) ÷ 100) **or** [86.4] × 30 ÷ 100 (= 25.92) **OR** 72 ÷ 100 × ((100 – 30) ÷ 100) (= 0.504) **OR** 120 × "0.216" (= 25.92)	[86.4] must be a value less than 120
		A1	cao	

Q19 Nov 2023

24	4811.20	M1	for full method for one year, eg 4500 × 1.034 (= 4653) oe	Can be implied by 4806 or 9306
		A1	for 4811.2(0)	Accept 4811.202 and 4811.21

Q20 Nov 2024

1	$\frac{17}{100}$	B1	for $\frac{17}{100}$ or any other equivalent fraction

Q21 Nov 2024

12	15	P1	for process to find number of child tickets, eg 180 ÷ 100 × 60 (= 108) oe	
		P1	for process to find total cost of child tickets, eg "108" × 8 (= 864) **or** [108] × 8 **OR** for process to find number of adult tickets, eg 180 – [108] (= 72) or 180 ÷ 5 × 2 (= 72) oe or $180\times\frac{100-60}{100}$	Where [108] is what they clearly think is 60% of 180 but can't be greater than 180
		P1	for a complete process, eg (1944 – "864") ÷ "72" **or** (1944 – [108] × 8) ÷ (180 – [108])	
		A1	cao	

Q22 Nov 2024

17	(a)	265.05	M1	for 285 × (7 ÷ 100) (= 19.95) oe **or** (100 – 7) ÷ 100 (= 0.93)	
			M1	for 285 – "19.95" **or** 285 × "0.93" oe	
			A1	cao	Accept £265.05p
	(b)	8000	P1	for start of process, eg 2100 – 1700 (= 400)	
			P1	for using "400" = 5%, eg (1% =) "400" ÷ 5 (= 80) or (10% =) "400" × 2 (= 800) or (50% =) "400" × 10 (= 4000) **or** "400" ÷ 5 × 100	
			A1	cao	

Q23 Nov 2024

25	Yes (supported)	P1	for start to a process to find a percentage increase, eg $85-76\,(=9)$ or $66-65\,(=1)$ **or** $\frac{85}{76}\,(=1.118...)$ or $\frac{66}{65}\,(=1.015...)$	Accept use of rounded and truncated figures for all marks.
		P1	for process to find a % increase, eg $\frac{"9"}{76}\times 100\,(=11.84...)$ or $\frac{"1"}{65}\times 100\,(=1.53...)$ **or** $\frac{85}{76}\times 100-100\,(=11.84...)$ oe or $\frac{66}{65}\times 100-100\ (=1.53...)$ oe	May work in decimals or equivalent proportions throughout
		P1	for processes to find both % increases, eg $\frac{"9"}{76}\times 100\,(=11.84...)$ **and** $\frac{"1"}{65}\times 100\,(=1.53...)$ **or** $\frac{85}{76}\times 100-100\,(=11.84...)$ oe **and** $\frac{66}{65}\times 100-100\ (=1.53...)$ oe	
]		C1	for Yes supported by correct figures, eg 11(.842…) ÷ 1.5(38…) = 7.3 to 8 **or** 11(.842...) **and** 1.5(38…) × 7 = 10(.766…) **or** 11(.842…) ÷ 7 = 1.57 to 1.7 **and** 1.5(3…) **or** 0.11(842…) **and** 0.10(766…)	