

Compound Interest and Depreciation

November 2022 Paper 2

Question	Answer	Mark	Mark scheme	Additional guidance
23	7318.15	M1	for a correct first step eg working out increase for one year $7000 \times (100 + 3) \div 100 (= 7210)$ oe or $7000 \times 3 \div 100 (= 210)$ oe or find the multiplier for both years eg $(100 + 3) \div 100 \times (100 + 1.5) \div 100 (=1.04545)$	7315 or 315 implies M1
		M1	for a compound method, eg $7000 \times (100 + 3) \div 100 \times (100 + 1.5) \div 100$ oe or “7210” $\times 1.5 \div 100$ or $(= 108.15)$ oe	318.15 implies M1M1A0
		A1	cao	

November 2023 Paper 2

Question	Answer	Mark	Mark scheme	Additional guidance
24	4811.20	M1	for full method for one year, eg $4500 \times 1.034 (= 4653)$ oe	Can be implied by 4806 or 9306
		A1	for 4811.2(0)	Accept 4811.202 and 4811.21

June 2024 Paper 3

Question	Answer	Mark	Mark scheme	Additional guidance
25	29 775	P1	for evidence of using a correct first step eg $25\,000 \times 0.06 (= 1500)$ or $25\,000 \times 1.06 (= 26\,500)$	P3A0 is implied by 4775 or 4776 or 4780 or 4800
		P1	for evidence of a "compound interest" process eg " $26\,500$ " $\times 0.06 (= 1590)$ or " $26\,500$ " $\times 1.06 (= 28\,090)$ or $25\,000 \times 1.06^t, t \geq 2$	
		P1	for a complete process eg $25\,000 \times 1.06^3 (= 29\,775.4)$	
		A1	for 29 775 or 29 776 or 29 780 or 29 800 SCB1 for 3000 or 4500 or 28000 or 29500 seen if P0 scored	

November 2024 Paper 3

Question	Answer	Mark	Mark scheme	Additional guidance
26	247.4(0)	<p>M1</p> <p>M1</p> <p>A1</p>	<p>for a method to find the value of the investment or interest after 1 year, eg $4500 \times 1.018 (= 4581)$ or $4500 \times 0.018 (= 81)$</p> <p>for a method to find the value of the investment after 3 years, eg $4500 \times 1.018^3 (= 4747.4\dots)$ or “4581” $\times 1.018 (= 4663.45\dots)$ and “4663.45...” $\times 1.018 (= 4747.4\dots)$ or 4747.39...)</p> <p>accept 247.39</p> <p>SCB1 for 243 or 4743 if M0 scored</p>	<p>May be seen in more than one calculation</p> <p>Award of this mark implies the first M1</p> <p>Sight of 83.94... implies M2</p>

June 2022 Paper 2

Question	Answer	Mark	Mark scheme	Additional guidance
26	600.74	M1	works out decrease for one year, eg $679 \times 4 \div 100$ (=27.16) oe or $679 \times (100 - 4) \div 100$ (= 651.84) oe	Implied by 679×0.12 (=81.48) or 679×0.88 (=597.52)
		M1	for compound method, eg $679 \times "0.96"^{t \geq 2}$ or " 651.84 " \times " 0.96 " (= 625.76..) or " 651.84 " \times " 0.04 " (=26.07) or for answers in the range 600.71 to 600.74 exclusive	Values may be rounded or truncated
		A1	accept 600.71 or 600.72 or 600.73 or 600.74	If the correct answer is seen and the difference found award M1M1A0

June 2023 Paper 2

Question	Answer	Mark	Mark scheme	Additional guidance
27	Rachel supported	P1	for process to begin to work with percentage for year 1 for Tamsin or Rachel, eg 150000×0.04 (= 6000) oe or 150000×1.04 (= 156000) oe or 160000×0.015 (= 2400) oe or 160000×1.015 (= 162400) oe	May be implied by 12000 or 4800 or 162000 or 164800
		P1	for process to use compound interest for Tamsin or Rachel, eg “156000” $\times 0.04$ (= 6240) oe or “156000” $\times 1.04$ (= 162240) oe or “162400” $\times 0.015$ (= 2436) oe or “162400” $\times 1.015$ (= 164836) oe or 1.04^2 (= 1.0816) or 1.015^2 (= 1.030225) OR for process to begin to work with percentage increase for Tamsin and Rachel for one year, eg 150000×1.04 (= 156000) oe and 160000×1.015 (= 162400) oe	values may be rounded or truncated to 3 sf May be implied by 162000 and 164800
		P1	for full process to find figures to compare, eg Tamsin for 2 years and Rachel for 2 years eg 150000×1.04^2 (= 162240) oe and 160000×1.015^2 (= 164836) oe OR Tamsin for 2 years and Rachel for 1 year, eg 150000×1.04^2 (= 162240) oe and 160000×1.015 (= 162400) oe	Other comparisons are possible
		C1	for Rachel with supporting figures, eg 162240 and 164836 or 162240 and 162400 or other valid conclusion with supporting comparable figures	Note that the figure used to compare for Rachel can be the figure after 2 years or after 1 year