REVISE
.wales

F1.06 — Simple & compound interest

Mark schemes for the F1.06 question pack

Spec 1.8.3 — Unit 1

SOLUTIONS · 2025 SPECIFICATION

Mark schemes for the 6 questions in the corresponding revise.wales question pack (25 marks total). Sources: legacy WJEC GCSE papers, WJEC SAM, and custom-authored mark schemes. Pack layout © revise.wales.

7(a) $4500 \times (1 - 0.2(0)) \times (1 - 0.14)^9$ or $4500 \times 0.8(0) \times 0.86^9$ or equivalent	M2	For M2, do not ignore any additional years considered, unless 10 years selected or implied in later working M1 for equivalent of one of the following (which may be embedded in other working): • $4500 \times (1 - 0.2(0))$ (= 3600) • $4500 \times 0.8(0)$ (= 3600) • $4500 \times (1 - 0.14)^9$ (= 1157.97...) • 4500×0.86^9 (= 1157.97...)
An answer in the range (£)926.35 to (£)926.40	A1	An answer for 10 years (not beyond) must be selected Allow an answer of (£)926 provided not from rounding an amount outside the range given Award M1, SC1 for an answer $(4500 \times 0.8 \times 0.86^{10} =)$ (£)796.68(5....) or (£)796.69 or (£)796.70 or (£)797
7(b) $100 \times 750 \div 125$ or $100 \times \frac{750}{125}$ or equivalent	M1	
(£) 600	A1	Answer space takes precedence
7(c)		Accept equivalents using the sine rule throughout '½ width' may be referred to by any unknown
Sight of appropriate 80 (cm) (height of triangle)	B1	Check if indicated on the diagram
(½ width =) $\frac{80}{\tan 33°}$ or (½ width =) $80 \times \tan(90° - 33°)$	M2	(= 123.189... cm or 123.2 cm) FT 'their 80' provided ≤ 120 and ≠ 90 M1 for sight of $\tan 33° = \frac{80}{\text{½ width}}$ or $\tan(90° - 33°) = \frac{\text{½width}}{80}$
× 2	m1	FT provided at least M1 previously awarded, i.e. for intention to double 'their ½ width'
(Width of garage is) 246(cm) to 246.4(cm)	A1	CAO. ISW
7(d) (Maximum space =) 555 – 395 – 70 or 550 – 400 + 2 × 5 – 70 or equivalent	M2	Check the diagram M1 for any of the following: • **use** of 550 < 'their 555' ≤ 560 AND 390 ≤ 'their 395' < 400 • for sight of 555 and 395 • for sight of 550 – 400 + 2 × 5
90 (cm)	A1	CAO Award M1 and SC1 for an answer of (555 – 395 =) 160 (cm)

9. $2500 \times (1 - 0.23) \times (1 - 0.04)^{39} \times (1 + 0.14)^{10}$ or $2500 \times 0.77 \times 0.96^{39} \times 1.14^{10}$ or equivalent	M3	May be seen in stages M2 for a product with any 3 correct terms OR M1 for a product with any 2 correct terms
(£) 1452(.30)	A1	CAO, ignore premature rounding in working provided answer is (£) 1452.(…), allow rounded to (£)1450 from correct working

Unit 2: Intermediate Tier	Mark	Comments
1. (Amount needed to save after next week) (£)510 – 165 or (£) 510 – (95 + 70) or (£) 510 – 95 – 70 (=£345)	M2	May be seen in stages Allow missing brackets provided not contradicted in further working M1 for sight of any one of • 510 – 95 (= £415) • 510 – 70 (= £440)
(Amount to save per week £) ÷ 12	m1	Depends on at least M1 previously awarded
(£) 28.75	A1	CAO. ISW FT provided at least 2 marks previously awarded • FT from M1 m1 for A1: ○ 415 ÷ 12 = (£)34.58(333…) or (£)34.59 ○ 440 ÷ 12 = (£)36.66(666..) or (£)36.67 • FT from M2 m0 for A1: ○ 345 ÷ 13 = (£)26.53(8….) or (£)26.54 ○ 345 ÷ 11 = (£)31.36(36…) or (£)31.37 If no marks, award any one of the following:

SC2	(£)28.75 < answer ≤ (£)29, from supporting working, e.g. 12 × 29 + 95 + 70 = (£)513
SC1	(£)28.75 < unsupported answer ≤ (£)29
SC1	answer (£)13.75 from 165 ÷ 12
SC1	answer (£)42.50 from 510 ÷ 12

Unit 2: Foundation Tier	Mark	Comments
7(a)(i) 133 × 8 1064 (miles)	M1 A1	Mark final answer. Allow 1064 km
7(a)(ii) 8 × 60 480 (mph)	M1 A1	FT from (a)(i) 60 × 'their 1064' ÷ 133 or 'their 1064' ÷ $\frac{133}{60}$ or 'their 1064' ÷ 2.2(166…) Allow A1 for 479 (mph) < answer ≤ 483.64 (mph) from 1064 ÷ 2.2(1666…) rounded or truncated to at least 1 d.p. or similar for a correctly evaluated 'their 1064' ÷ 2.2(166..)
7(b) 55 × 40 × 23 50 600 (cm^3) or 50 600 ml or 50.6 litres Unambiguously implies 'Yes' with one of the following: • (48 litres =) 48 000 cm^3 • 50.6 (litres) • a suitable appropriate statement, e.g. '50 litres is more than 48 litres'	M1 A1 E1	FT from M1 A0 provided appropriate conclusion and conversion is shown Allow 'Yes' with clear **use of** 1 litre = 1000 cm^3, e.g. • (48 litres is less than) 50(.6 litres) • 50(.6 litres is greater than 48 litres) • 50 000 (cm^3) is greater than 48 000 (cm^3)
7(c) a = 43(°) b = 137(°) c = 112(°) d = 112(°)	B1 B1 B1 B1	 FT b = 180 - 'their a', provided 'their b' > 90 and 'their b' ≠ 112 FT 360 – (68 + 'their a' + 'their b'), provided: • 112 < 'their a' + 'their b' < 202 • c ≠ 137 • their c' ≠ 'their b' FT d = 'their c', provided 90 < 'their c' < 180

Unit 1: Intermediate Tier	Mark	Comments
9(a)(i) 1×10^5	B1	
9(a)(ii) A suitable calculation, including an appropriate approximation, e.g. $\frac{3\,100\,000}{21\,000}$ or $\frac{3\,100\,000}{20\,000}$ or $\frac{3\,000\,000}{20\,000}$ or $\frac{3\,000\,000}{21\,000}$ or equivalent Answer in the range 142 (people/km^2) to 155 (people/km^2)	M2 A1	Place value must be correct Must include an approximation M1 for the idea to divide (in the correct order), that may also include one place value error, e.g. $\frac{3.1\ million}{20\,735}$, $\frac{31\,000\,000}{20\,000}$, $\frac{3\,100\,000}{20\,700}$ ISW. Allow 142.8, 142.9 and 143 rounded to 140 Accept equivalents, e.g. 150 written as 1.5×10^2
9(b) Idea that 360 000 is 120% 360 000 ÷ 1.2 or equivalent 300 000 (people)	B1 M1 A1	Accept from sight of trial to increase 'their value' by 20% provided 'their value' <360 000 Award of M1 also implies previous B1
9(c) (Length) 6.6 ÷ (4.2 ÷ 1.4) or 6.6 ÷ 3 or equivalent Length 2.2 (cm) (Height) 4.2 × (9.9 ÷ 6.6) or 4.2 × 1.5 or 1.4 × (9.9 ÷ 2.2) or equivalent Height 6.3 (cm)	M1 A1 M1 A1	 FT 1.4 × (9.9 ÷ 'their derived length') Note: Length (from *9.9 – 6.6* =) *3.3*(cm) M0 A0 Height (from 1.4 × (9.9 ÷ *3.3*) =) *4.2*(cm) M1 A1 (FT) Allow answers reversed in the answer space
9(c) Alternative method *(Height) 4.2 × (9.9 ÷ 6.6) or 4.2 × 1.5 or equivalent* *Height 6.3 (cm)* *(Length) 6.6 ÷ (4.2 ÷ 1.4) or 6.6 ÷ 3 or 9.9 ÷ (6.3 ÷ 1.4) or equivalent* *Length 2.2 (cm)*	*M1* *A1* *M1* *A1*	 *FT 9.9 ÷ ('their derived height' ÷ 1.4)* *Allow answers reversed in the answer space*

8. Appropriate sight of (30 000 – 10 000 =) 20 000 (dollars) or (36 000 – 30 000 =) 6000 (dollars)	B1	Ignore £ or other currency for dollars May be implied in further working
(Tax at 10%) 0.10 × (30 000 – 10 000) or 0.10 × 20 000 or equivalent	M1	FT use of 'their (30 000 – 10 000)' from an error in subtraction
2000 (dollars)	A1	CAO
(Tax at 25%) 0.25 × 6000 or or 0.25 × (36 000 – 30 000) or equivalent	M1	FT use of 'their (36 000 – 30 000)' from an error in subtraction
1500 (dollars)	A1	CAO
(Total tax due) 3500 (dollars)	B1	ISW FT 'their 2000' + 'their 1500' provided both M1 marks previously awarded