
GCSE Mathematics

Scale Diagrams & Maps

Mark Scheme - Foundation Tier | Grades 4-5

M = method mark, A = accuracy mark (dependent on the preceding M mark), B = independent mark.

© Teachably. This resource may not be copied or distributed without permission.

Edexcel-style questions

Q1 Grade 4 Edexcel style

Total: 2

Part	Mark scheme	Marks
(a)	real distance = $8 \times 50000 = 400000$ cm	M1
(a)	real distance = 4 km	A1

Q2 Grade 4 Edexcel style

Total: 2

Part	Mark scheme	Marks
(a)	map distance = $15 \div 2$	M1
(a)	map distance = 7.5 cm	A1

Q3 Grade 5 Edexcel style

Total: 3

Part	Mark scheme	Marks
(a)	6 m = 600 cm	M1
(a)	ratio = 3:600	M1
(a)	scale = 1:200	A1

Q4 Grade 5 Edexcel style

Total: 3

Part	Mark scheme	Marks
(a)	area scale factor = $200^2 = 40000$	M1
(a)	real area = $15 \times 40000 = 600000$ cm ²	M1
(a)	real area = 60 m ²	A1

Q5 Grade 5 Edexcel style

Total: 4

Part	Mark scheme	Marks
(a)	real distance = $6 \times 100000 = 600000$ cm	M1
(a)	real distance = 6 km	A1
(a)	time = $6 \div 15$	M1
(a)	time = 0.4 hours = 24 minutes	A1

AQA-style questions**Q6** Grade 4 AQA style**Total: 2**

Part	Mark scheme	Marks
(a)	real distance = 6×5	M1
(a)	real distance = 30 km	A1

Q7 Grade 4 AQA style**Total: 2**

Part	Mark scheme	Marks
(a)	6 km = 600000 cm	M1
(a)	map distance = $600000 \div 100000 = 6$ cm	A1

Q8 Grade 5 AQA style**Total: 3**

Part	Mark scheme	Marks
(a)	8 km = 800000 cm	M1
(a)	ratio = 4:800000	M1
(a)	scale = 1:200000	A1

Q9 Grade 5 AQA style**Total: 3**

Part	Mark scheme	Marks
(a)	area scale factor = $50^2 = 2500$	M1
(a)	real area = $24 \times 2500 = 60000$ cm ²	M1
(a)	real area = 6 m ²	A1

Q10 Grade 5 AQA style**Total: 4**

Part	Mark scheme	Marks
(a)	real distance = 10×4	M1
(a)	real distance = 40 km	A1
(a)	time = $40 \div 40$	M1
(a)	time = 1 hour	A1

OCR-style questions

Q11 Grade 4 OCR style

Total: 2

Part	Mark scheme	Marks
(a)	real distance = $12 \times 20000 = 240000$ cm	M1
(a)	real distance = 2.4 km	A1

Q12 Grade 4 OCR style

Total: 2

Part	Mark scheme	Marks
(a)	map distance = $10.5 \div 3$	M1
(a)	map distance = 3.5 cm	A1

Q13 Grade 5 OCR style

Total: 3

Part	Mark scheme	Marks
(a)	15 m = 1500 cm	M1
(a)	ratio = 5:1500	M1
(a)	scale = 1:300	A1

Q14 Grade 5 OCR style

Total: 3

Part	Mark scheme	Marks
(a)	area scale factor = $1000^2 = 1000000$	M1
(a)	real area = $6 \times 1000000 = 6000000$ cm ²	M1
(a)	real area = 600 m ²	A1

Q15 Grade 5 OCR style

Total: 4

Part	Mark scheme	Marks
(a)	real distance = $14 \times 50000 = 700000$ cm	M1
(a)	real distance = 7 km	A1
(a)	time = $7 \div 5$	M1
(a)	time = 1.4 hours = 1 hour 24 minutes	A1

Teachably-style questions

Q16 Grade 4 Teachably style

Total: 2

Part	Mark scheme	Marks
(a)	real distance = 9×4	M1
(a)	real distance = 36 km	A1

Q17 Grade 4 Teachably style

Total: 2

Part	Mark scheme	Marks
(a)	5 km = 500000 cm	M1
(a)	map distance = $500000 \div 25000 = 20$ cm	A1

Q18 Grade 5 Teachably style

Total: 3

Part	Mark scheme	Marks
(a)	12 km = 1200000 cm	M1
(a)	ratio = 3:1200000	M1
(a)	scale = 1:400000	A1

Q19 Grade 5 Teachably style

Total: 3

Part	Mark scheme	Marks
(a)	area scale factor = $150^2 = 22500$	M1
(a)	real area = $10 \times 22500 = 225000 \text{ cm}^2$	M1
(a)	real area = 22.5 m ²	A1

Q20 Grade 5 Teachably style

Total: 4

Part	Mark scheme	Marks
(a)	real distance = 8×2.5	M1
(a)	real distance = 20 km	A1
(a)	time = $20 \div 20$	M1
(a)	time = 1 hour	A1

END OF PAPER

Want help from an expert maths tutor?

Book a free GCSE Maths consultation with our team at Teachably. Visit teachably.co.uk/book-call to get started.