Version 1.0

General Certificate of Secondary Education

Mathematics 4360

Unit 3 Foundation Tier 43603F

Mark Scheme

Specimen Paper

Mark Schemes

Principal Examiners have prepared these mark schemes for specimen papers. These mark schemes have not, therefore, been through the normal process of standardising that would take place for live papers.

Further copies of this Mark Scheme are available to download from the AQA Website: www.aqa.org.uk

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Glossary for Mark Schemes

GCSE examinations are marked in such a way as to award positive achievement wherever possible. Thus, for GCSE Mathematics papers, marks are awarded under various categories.

M	Method marks are awarded for a correct method which could lead to a correct answer.
A	Accuracy marks are awarded when following on from a correct method. It is not necessary to always see the method. This can be implied.
B	Marks awarded independent of method.
Q	Marks awarded for quality of written communication.
M dep	A method mark dependent on a previous method mark being awarded.
ft	Follow through marks. Marks awarded following a mistake in an earlier step.
SC	Special case. Marks awarded within the scheme for a common misinterpretation which has some mathematical worth.
oe	Or equivalent. Accept answers that are equivalent. eg, accept 0.5 as well as $\frac{1}{2}$
eeoo	Each error or omission.

Unit 3 Foundation Tier

Q	Answer	Mark	Comments
1(a)	Fully correct rectangle	B2	B1 For one correct side
1(b)(i)	Sometimes true	B1	
1(b)(ii)	Never true	B1	
1(b)(iii)	Always true	B1	
2	(£) 13.10	B1	
	1.50 or $\frac{90}{100} \times 15$	M1	oe
	(£) 13.50	A1	
	Logical steps ft their working (with errors) to a conclusion	Q1	Strand (ii)
3(a)	3×4	M1	$\frac{3}{4}$ of grid identified
	12	A1	
3(b)	$\frac{5}{20}$ ($\times$ 100)	M1	oe
	25	A1	
3(c)	$\frac{1}{2} \times 2 \times 2$ ($= 2$) or states 2 out of 3 shaded	M1	Identifies 1 square unshaded or 4 quarters unshaded or 2 squares shaded oe
	$\frac{2}{3}$	A1	
4(a)	(B and) E	B1	
	(A and) F	B1	
4(b)	All 3 pairs identified B and C D and E E and F	B2	B1 For two identified with none incorrect
4(c)	C and D shaded	B1	

Q	Answer	Mark	Comments
5(a)	Top right or bottom left square added	B1	
5(b)	Bottom left or top right square added	B1	
5(c)	Top left square shaded	B1	
6(a)(i)	(£) 15	B1	
6(a)(ii)	Company A	B1	
	Cheaper or only £ 10 or £ 5 less	B1	
6(b)(i)	300 – 250	M1	
	50	A1	
6(b)(ii)	(£) 20	B1	
	20 ÷ 0.25	M1	oe
	80	A1	
7(a)	12	B1	
7(b)	$(4 + 10) \div 2$	M1	
	7	A1	
7(c)	$4a + 8b$ or $4(a + 2b)$	B2	B1 For one term correct
7(d)	$5w + w = 9 - 6$	M1	Allow one sign error
	$6w = 3$	M1	For collecting like terms ft Their first line
	$\frac{1}{2}$	A1	oe Accept $\frac{3}{6}$
8	Height of man 1.8	B1	Accept [1.5, 2]
	Their 1.8 × 6	M1	Allow [5, 7]
	10.8	A1 ft	

Q	Answer	Mark	Comments
9	4×2 or 2×2 or 8 or sight of 4, 2 and 2 on diagram	M1	
	$4 \times 2 \times 2$ or 8×2 or 4×4 or $8 + 8$	M1 dep	
	16	A1	
10(a)	47 ± 2	B1	
10(b)	An acute, an obtuse and a reflex angle with total 360°	B3	B2 For three conditions met B1 For one or two conditions met
11(a)	1 km = 1000 m **or** area = $1000 \times 10 = 10\,000\,\text{m}^2$	B1	
11(b)	200 or 7000 seen	B1	
	$7000 \div 200$	M1	
	35	A1	
12	Fully correct rotation	B3	B1 180° rotation with centre 0 B1 90° clockwise rotation with wrong centre B2 90° clockwise rotation with centre 0 B2 90° anticlockwise rotation with wrong centre
13	$3.14(1\ldots) \times 10.5$	M1	
	32.9 to 33	A1	

Q	Answer	Mark	Comments
14	5×4.47	M1	
	Their 22.35×27	M1 dep	
	603	A1	
	$600 < 603$ so not speeding	A1	oe
	Alternate method		
	$600 \div 27$ (= 22.22)	M1	
	Their $22.22 \times 10 \div 4.47$	M1 dep	
	49.71	A1	
	$49.71 < 50$ so not speeding	A1	oe
15(a)	80° and 20°	B1	
	50° and 50°	B1	
15(b)	$\angle BAD = 30°$ or any angle in $\Delta BCD = 60°$	B1	
	$\angle ABD = 30°$	B1	
	Isosceles because $\angle BAD = \angle ABD$	B1	oe
16	Multiples of 8 (at least 4) 8, 16, 24, 32, 40, 48, 56, …	M1	Either $8x$ or $9(12 - x)$ $x + y = 12$
	Multiples of 9 (at least 4) 9, 18, 27, 36, 45, 54, 63, …	M1	$8x + 9(12 - x) = 103$ $8x + 9y = 103$
	40 and 63	M1	$8x + 108 - 9x = 103$ $9x + 9y = 108$
	5	A1	
17(a)	5 (equal) exterior angles must total 360° **and** $360 \div 5 = 72$ or $5 \times 72 = 360$	B1	$360 \div 5 = 72$ is not enough … there must be some reference to exterior angles
17(b)	2×72 or $360 - (2 \times 108)$	M1	oe
	($x =$) 144	A1	

18	6×2 ($\times 1$) $\times 1.25$	M1	
	15	A1	
	15×49.50 ($+ 30$) or 5×67.50 ($+ 430$) ($= 337.50$)	M1	
	(£)742.50 or (£)772.50	A1	
	Company B and (£)767.50	A1	
	All stages of calculation shown with both M1s awarded	Q1	Strand (iii) Condone numerical errors