



Annual Examinations for Middle Schools 2024

YEAR 7	MATHEMATICS	MARKING SCHEME
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Types of Marks

Method marks are awarded for knowing a correct method of solution and attempting to apply it. Method marks cannot be lost for arithmetic mistakes. They can only be awarded if the method used would have led to the correct answer had not an arithmetic mistake been made. Unless otherwise stated, any valid method not specified in the marking scheme is to be accepted and marked accordingly.

There are two types of Method marks: **M** marks and **(M)** marks.

- **M marks** are only awarded if method is seen.
- **(M) marks** are awarded even when a correct answer is given, and no work is shown.

There are two types of Accuracy marks: **A** marks and **B** marks.

- **A** marks are accuracy marks given for correct answer only (c.a.o.).
 - Incorrect answers, even though nearly correct, score no marks.
 - Accuracy marks are also awarded for incorrect answers which are correctly followed through (f.t.) from an incorrect previous answer, **provided that f.t. is indicated in the marking scheme.**
 - No Method marks **M/(M)** or Accuracy marks **A** are awarded when a wrong method leads to a correct answer.
 - When a question is assigned **M** and **A** marks and students present a correct answer without any working, only **A** marks are awarded.
- **B** marks are accuracy marks awarded for specific results or statements independent of the method used.

Misreading

Method marks can still be earned (unless that part of the question is trivialised) but the final Accuracy marks are lost.

Crossed out working

An answer or working that is crossed out and not replaced is marked as if it were not crossed out. If the answer or working is replaced, then the crossed out answer or working is ignored and should not be considered for marking.

Units

In general, missing or inaccurate units are not penalised unless otherwise indicated in the marking scheme.

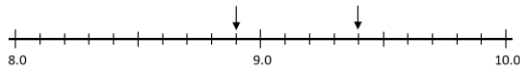
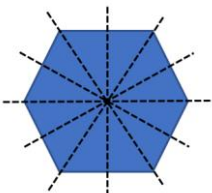
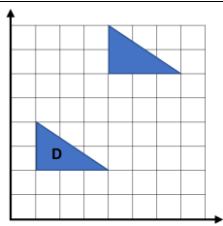
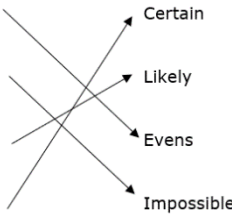
Other

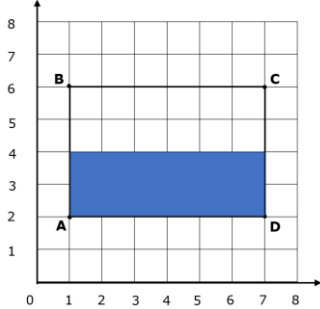
- Incorrect working or statement following a correct answer is ignored.
- Marks are not sub-divisible; no half marks may be awarded.
- Other abbreviations used:
 - o.e. (or equivalent)
 - e.e.o.o. (each error or omission)
- Markers are advised to indicate the M, (M), A or B marks awarded in the body of the script and then write their total in the margin. The total mark for each question should be written in the table included at the top of page 1 of the main paper. This measure facilitates the moderation of papers.

NON-CALCULATOR PAPER (20 marks)**Questions 1-10 (1 mark each) and questions 11-15 (2 marks each)**

Que.	Requirements	Mark		Additional Guidance
1	60	B1	1	
2	20	B1	1	
3	$\frac{1}{4}$	B1	1	
4	9	B1	1	
5	48	B1	1	
6	29	B1	1	
7	8	B1	1	
8	2300	B1	1	
9	237	B1	1	
10	$\frac{4}{5}$	B1	1	
11	9.0 , 9.5	B1 B1	2	
12	55.9	(M)1 A1	2	
13	24	(M)1 A1	2	(M)1 for simplifying 60 by 5
14	9	(M)1 A1	2	(M)1 for $36 \div 4$
15	39	(M)1 A1	2	(M)1 for 12×4

MAIN PAPER (80 marks)

Que.		Requirements	Mark		Additional Guidance																												
1	a	138	B1	6	Eg. 3 + 9 + 11 B1 for two correct																												
	b	Any three odd numbers adding to 23	M1 A1																														
	c	i) 6, 15, 18, 21 ii) 8, 16	B2 B1																														
2	a	8.3 and 9.7	B1 B1	4																													
	b		B1 B1																														
3	a	<table border="1"><thead><tr><th>Item</th><th>Quantity</th><th>Price (€)</th><th>Total (€)</th></tr></thead><tbody><tr><td>Pencil</td><td>4</td><td>0.85</td><td>3.40</td></tr><tr><td>Biro</td><td>3</td><td>2.15</td><td></td></tr><tr><td>Notebook</td><td>1</td><td>3.00</td><td></td></tr><tr><td>Birthday Card</td><td>2</td><td>2.50</td><td>5.00</td></tr><tr><td>Stamps</td><td>5</td><td>0.38</td><td>1.90</td></tr><tr><td colspan="2">Total</td><td colspan="2">€19.75</td></tr></tbody></table>	Item	Quantity	Price (€)	Total (€)	Pencil	4	0.85	3.40	Biro	3	2.15		Notebook	1	3.00		Birthday Card	2	2.50	5.00	Stamps	5	0.38	1.90	Total		€19.75		(M)1 A1 A1 A1 A1 ft	6	ft from incorrect entry in table
	Item	Quantity	Price (€)	Total (€)																													
Pencil	4	0.85	3.40																														
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Total		€19.75																															
	b	25	B1																														
4	a	i)  ii) 	B1 B2	5	Correct orientation Correct position																												
	b		M1 A1																														
5	a	$\frac{25}{100} \times 48 = 12$	M1 A1	4	ft from a)																												
	b	$48 - 12 = 36$	(M)1 A1 ft																														
6		An even number A number is greater than 8 A number is less than 6 A whole number 	B4	4	-1e.e.o.o.																												

7	a	i) 4 ii) Sunday iii) 7 days iv) 13 v) Friday	B1 B1 B1 (M)1 A1 B1	10											
	b	i) 7:15 am ii) half past eight in the morning	B2 B1 B1		B1 for 7:15 B1 for am										
8	a	(1 , 2)	B1	7											
	b		B1 B1												
	c		B1 B1		B1 for plotting D correctly B1 for coordinates of D										
	d		(M)1 A1		Any correct 50% shading										
9	a	False	B1	6											
	b	False	B1												
	c	True	B1												
	d	True	B1												
	e	False	B1												
	f	True	B1												
10	a	45°	B1	7	±2°										
	b	115° correctly drawn	(M)1 A1		±2°										
	c	equilateral	B1												
	d	180° - 54° - 54° 72°	M2 A1		M1 for 180° M1 for subtracting										
11	a	<table border="1"><thead><tr><th>Movie</th><th>Frequency</th></tr></thead><tbody><tr><td>Action</td><td>8</td></tr><tr><td>Horror</td><td>5</td></tr><tr><td>Comedy</td><td>14</td></tr><tr><td>Sc-Fiction</td><td>10</td></tr></tbody></table>	Movie	Frequency	Action	8	Horror	5	Comedy	14	Sc-Fiction	10	B4	9	
	Movie	Frequency													
	Action	8													
	Horror	5													
Comedy	14														
Sc-Fiction	10														
b	8 + 5 + 14 + 10 = 37	(M)1 A1 ft	ft from a)												
c	Comedy	B1													
d	14 - 5 = 9	(M)1 A1 ft	ft from a)												
12	a	P = 3(2.5) + 2 + 6.5 + 2 + 4 = 22	M2 A1	6											
	b	A of square = 2.5 × 2.5 = 6.25 A of rectangle = 2 × 6.5 = 13 Total Area = 19.25	M1 M1 A1												
13	a	(6×4) + 8 = 32	M1 A1	6											
	b	i) 2d + 3m ii) (2×75) + (3×95) 150 + 285 = €4.35	B1 M1 (M)1 A1 ft		ft from bi)										