



Annual Examinations for Middle Schools 2024

YEAR 8	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.

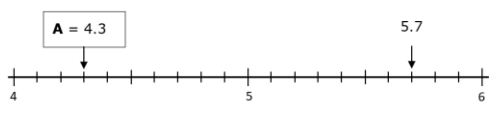
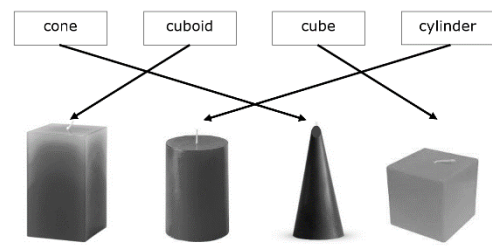
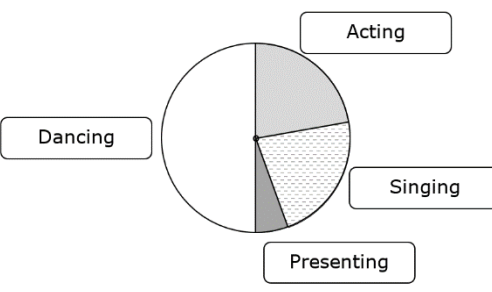
Other

- 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.

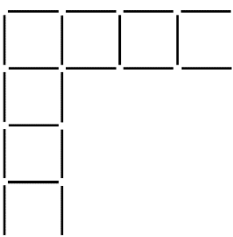
NON-CALCULATOR PAPER (20 marks)**Questions 1-10 (1 mark each) and questions 11-15 (2 marks each)**

Que.	Requirements	Mark		Additional Guidance
1	391	B1	1	
2	64	B1	1	
3	0.75	B1	1	
4	2035	B1	1	
5	25	B1	1	
6	2 : 5	B1	1	
7	$\frac{2}{5}$	B1	1	
8	0.11	B1	1	
9	30 000	B1	1	
10	120	B1	1	
11	7.9, 7.7,, 7.3	(M)1 A1	2	Award for 7.9 All correct
12	$\frac{3 + 14}{17}$	(M)1 A1	2	
13	3, 4, 16 and 24 circled	(M)1 A1	2	Two correct factors All correct
14	360 – sum of angles OR 180 – 113 67	(M)1 A1	2	
15	Cost of one bottle = €25.20 126	(M)1 A1	2	

MAIN PAPER (80 marks)

Que.		Requirements	Mark	Additional Guidance	
1	a	10:40	B1	3	
	b	Twenty minutes to eleven in the morning.	B1 B1		
2	a	 (i) $A = 4.3$ (ii) Correct position of 5.7	B1 B1	10	
	b	Three thousand seven hundred and five	B2		
	c	(i) hundreds (ii) hundredths	B1 B1		
	d	(i) $11 - 4 = 7$ (ii) $13 - 2 = 11$	(M)1 A1 (M)1 A1		
3	a		B4	7	-1 e.e.o.o.
	b	(i) hexagon (ii) circle (iii) pentagon	B1 B1 B1		
4	a		B4	9	-1 e.e.o.o. Acting and Singing may be switched.
	b	(i) Placing numbers in order median = 23 (ii) mode = 19 (iii) $192 \div 8$ Mean = 24	(M)1 A1 B1 (M)1 A1		

5	a	(i) 6 (ii) 3	B1 B1	5	
	b	(i) Centre correctly marked and labelled. (ii) Diameter correctly marked and labelled. (iii) Circumference correctly marked and labelled.	B1 B1 B1		
6	a	(i) isosceles (ii) $a = 64$ (iii) $b = 180 - (64 \times 2)$ $b = 52$	B1 B1 M1 A1		
	b	(i) parallelogram (ii) $c = 60$	B1 B1		
	7				
a	B(7, -3)	B1	7		
b	Point C correctly marked Triangle ABC drawn	B1 B1			
c	Correct orientation Accurate drawing	M1 A1			
d	3 right 5 down	B1 B1			

8	a	$2g + 3s + 4b$	B2	5	-1 e.e.o.o.																			
	b	Cost = $(2 \times 10) + (3 \times 7) + (4 \times 4)$ = 20 + 21 + 16 = 57	(M)1 (M)1 A1																					
9	a	$\frac{20}{100} \times 1375$ = 275	M1 A1	4																				
	b	1375 - 275 = 1100	M1 A1 f.t.		f.t. incorrect (a)																			
10	a	25, 36, 49	B2	9	-1 e.e.o.o.																			
	b	31, 25, 19	B2		-1 e.e.o.o.																			
	c	(i) 	B1																					
		(ii) <table border="1" data-bbox="303 956 829 1068"><tr><td>Pattern</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td></tr><tr><td>Number of squares</td><td>1</td><td>3</td><td>5</td><td>7</td><td>9</td><td>11</td></tr><tr><td>Number of matches</td><td>4</td><td>10</td><td>16</td><td>22</td><td>28</td><td>34</td></tr></table>	Pattern		1	2	3	4	5	6	Number of squares	1	3	5	7	9	11	Number of matches	4	10	16	22	28	34
Pattern	1	2	3	4	5	6																		
Number of squares	1	3	5	7	9	11																		
Number of matches	4	10	16	22	28	34																		
11	a	$\frac{4}{9}$	B1	3																				
	b	$\frac{6}{9}$ or $\frac{2}{3}$	B1																					
	c	0	B1																					
12	a	Kitchen area = $(5.6 \times 3.3) \div 2$ = 9.24	M1 A1	5																				
	b	Dining/Living area = 6.5×5.4 = 35.1 Area of room = $9.24 + 35.1$ = 44.34	M1 M1 A1 f.t.		f.t. incorrect (a)																			
13	a	$6.90 \div 3$ = 2.30	M1 A1	7																				
	b	$8.84 \div 4 = 2.21$ 4-Pack offer is better value for money	M1 A1																					
	c	$2.35 \times 2 = 4.70$ $4.70 + 8.84$ = 13.54	M1 M1 A1																					