



Annual Examinations for Middle Schools 2022

YEAR 8	MATHEMATICS	MARKING SCHEME
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Notes for Marking of Scripts

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.

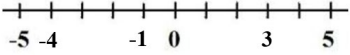
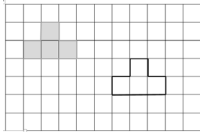
Non-Calculator Paper

Quest.		Requirements	Mark		Additional Guidance
1	a)	5325	B1	4	
	b)	3018	B1		
	c)	$4 \times 8 - 2$ $32 - 2 = 30$	M1 A1		
2	a)	2.7 cm 6.3 cm 9.4 cm	B1 B1 B1	5	
	b)	$9.4 - 2.7$ 6.7 cm	M1 A1 f.t.		f.t. from a)
3	a)	i) $\frac{2}{5}$ of 45 $45 \div 5 = 9$ $9 \times 2 = 18$ ii) $45 - 18$ $= 27$	M1 A1 M1 A1 f.t.	7	f.t. from i)
	b)	5 : 10	B1		
	c)	radius circumference	B1 B1		
4	a)	$13 \times 2 = 26$ $26 - 8 = 18$	M1 A1	3	
	b)	5	B1		
5	a)	$9 + 14 + 12 + 12 + 13 = 60$ $60 \div 5 = 12$	M1 A1	6	f.t.
	b)	9 12 12 13 14 12	(M)1 A1		For ordering the numbers
	c)	12	B1		
	d)	$14 - 9 = 5$	B1		
TOTAL NON-CALCULATOR PAPER: 25 MARKS					

Main Paper

Quest.		Requirements	Mark		Additional Guidance
1	a)	Seven thousand five hundred and thirty	B1	6	Ignore spelling mistakes
	b)	4 thousands or 4 000	B1		
	c)	i) False ii) True iii) True iv) False	B1 B1 B1 B1		

2	a)	i) $\frac{30}{100}$ of 1400 €420 ii) €1400 - €420 = €980	M1 A1 M1 A1 f.t.	5	f.t. from i)
	b)	$\frac{55}{100} = \frac{11}{20}$	B1		
3	a)	100 g flour 2 eggs 300 ml milk 2 tablespoons oil	B1 B1 B1 B1	6	(-1 e.e.o.o.)
	b)	300×3 = 900 ml	(M)1 A1		Accept any other methods such as the unitary method
4	a)	eight half	B1 B1	8	o.e.
	b)	(i) Munich, Toulouse (ii) quarter to one (iii) 5:15 or quarter past 3 in the afternoon (iv) 3 (v) Frankfurt	B1, B1 B1 B1 B1 B1		
5	a)	$€1.70 \times 5$ = €8.50	(M)1 A1	7	
	b)	$€1.99 \times 2$ = €3.98	(M)1 A1		
	c)	$€8.50 + €3.98 + €2.99$ = €15.47	(M1) A1 f.t.		f.t. from a) and b)
	d)	$€20 - €15.47 = €4.53$	A1 f.t.		f.t. from c)
6	a)	i) trapezium ii) rectangle iii) parallelogram iv) square	B1 B1 B1 B1	6	
	b)	$360^\circ - (140^\circ + 90^\circ + 50^\circ)$ = 80°	(M)1 A1		
7	a)	Attempt to add the squares 27m^2	(M)1 A1	10	
	b)	i) 4 m ii) $3 \times 4 = 12$ $12 \div 2 = 6\text{m}^2$ iii) Area of rec = $4 \times 3 = 12\text{m}^2$ Total area = $12\text{m}^2 + 6\text{m}^2 = 18\text{m}^2$ iv) No because Kate's garden has a larger area.	B1 M1 A1 M1 A1 B1		o.e.
	c)	$V = L \times B \times H = 7 \times 3 \times 2$ = 42cm^3	(M)1 A1		

8	a)	Correct drawing of bars	B2	6	Award B1 for every two correct bars drawn
	b)	$15 + 10 + 4 + 1$ = 30 students	(M)1 A1		
	c)	$4 + 1$ = 5 students	(M)1 A1		
9	a)	12 sweets	B1	4	
	b)	6 green sweets $\frac{6}{12} = \frac{1}{2}$	M1 A1		o.e.
	c)	0	B1		
10	a)		B3	5	(-1 e.e.o.o.)
	b)	Attempt to use or draw a number line from -2 to 3 5 floors	M1 A1		
11	a)	$5(4) + 2(1) - 3(3)$ $20 + 2 - 9$ 13	M1 M1 A1	6	
	b)	i) 8 ii) 12 iii) 70	B1 B1 B1		
12	a)		(M)2 A1	6	Attempt to move 5 to the right Attempt to move 2 down
	b)	Correct plotting of all three points Joining of points	B1 B1		Award B1 for at least two points drawn correctly
	c)	Accept any coordinate of points within the area of the square like (0,1) or (1,1) or (1,-1) or (-1, -1) or (-1,1) or (0,0) or (0, -1)	B1		
TOTAL MAIN PAPER: 75 MARKS					