

Annual Examinations for Secondary Schools 2022

YEAR 9	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.

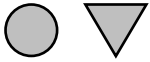
Units

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

Other

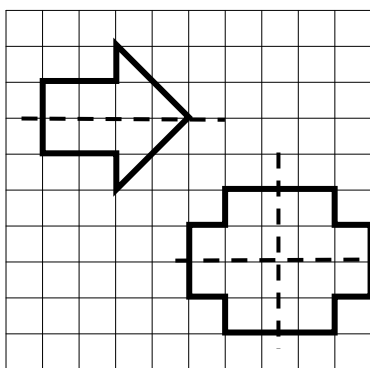
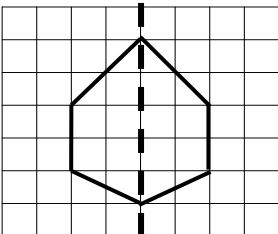
- Incorrect working or statement following a correct answer is ignored.
- Marks are not sub-divisible; no half marks may be awarded.
- Other abbreviations used:
 - * o.e. (or equivalent)
 - * e.e.o.o. (each error or omission)
- Markers are advised to indicate the M, (M), A or B marks awarded in the body 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 (25 marks)

Question		Requirements	Mark	Additional Guidance	Total
1	(a)	5679	B1		2
	(b)	Two thousand three hundred and forty-five	B1	Ignore incorrect spelling.	
2	(a)	18	B1		3
	(b)	100	B1		
	(c)	20	B1		
3	(a)	6.7 listed as smallest number 6.7, 7.7, 7.9, 8.5, 8.9	M1 A1		4
	(b)	Attempt to divide by 10 or multiply by 3 60	M1 A1		
4	(a)	2, 3, 5	B1	Not necessary in that order	2
	(b)	19 – 9	B1		
5	(a)	Shading of any 6 circles	B1		3
	(b)	$\frac{6}{12}$	B1 B1	Correct numerator Correct denominator	
6	(a)	54	B1		2
	(b)	$\frac{7}{9}$	B1		
7	(a)	Correct drawing of shapes	B2	–1 e. e. o. o.	4
	(b)		B2	–1 e. e. o. o.	
8	(a)	5800	B1		5
	(b)	400	B1		
	(c)	23	B1		
	(d)	360	B1		
	(e)	7	B1		

Main Paper (75 marks)

Question		Requirements	Mark	Additional Guidance	Total										
1	(a)	(i) kilometres (ii) kilograms (iii) litres	B1 B1 B1		5										
	(b)	$54 \div 9$ 6	(M)1 A1												
2	(a)	$\frac{25}{100} \times 200$ 50	(M)1 A1		7										
	(b)	$\frac{4}{10} \times 200$ 80	(M)1 A1												
	(c)	$50 + 80 = 130$ $200 - 130$ 70	(M)1 A1	f.t.											
	(d)	Rita	B1	f.t.											
3	(a)	(i) 3°C (ii) −5°C	B1 B1		4										
	(b)	(i) +6 or 6 (ii) −7	B1 B1												
4	(a)	(i) 53, 56 (ii) 41, add	B1 B1	Both correct Both correct	6										
	(b)	66 seen as first number 64, 62, 60, 58	B1 B3	−1 e. e. o. o.											
5	(a)	<table><tr><td>Football</td><td></td></tr><tr><td>Basketball</td><td></td></tr><tr><td>Volleyball</td><td></td></tr><tr><td>Tennis</td><td></td></tr><tr><td>Rugby</td><td></td></tr></table>	Football		Basketball		Volleyball		Tennis		Rugby		B1 B1 B1		6
		Football													
		Basketball													
		Volleyball													
		Tennis													
Rugby															
(b)	5	B1													
(c)	$9 + 5 + 4 + 4 + 2$ 24	(M)1 A1													
6	(a)	70	B1		3										
	(b)	200	B1												
	(c)	6	B1												
7	(a)	(i) Square (ii) Triangle	B1 B1		9										
	(b)	Attempt to count sides of square 18	(M)1 A1												
	(c)	Attempt to count squares 8	(M)1 A1												
	(d)	(i) double (ii) right angled (iii) smaller than	B1 B1 B1												

8	(a)	07:00	B1		9
	(b)	(i) Correct drawing of hands (ii) Attempt to find time interval 4	B2 (M)1 A1	−1 e. e. o. o.	
	(c)	(i) €5.50 × 4 €22 (ii) €66 ÷ €22 3	(M)1 A1 (M)1 A1	f.t. f.t.	
9	(a)	True	B1		3
	(b)	True	B1		
	(c)	False	B1		
10		Correct matching	B3	−1 e. e. o. o.	3
11	(a)	600, 70, 8	B3	−1 e. e. o. o.	6
	(b)	4586	B1		
	(c)	1350	B1		
	(d)	200	B1		
12	(a)	Circle drawn using centre O. Using correct radius.	M1 M1		4
	(b)	Drawing of diameter.	B1		
	(c)	Marking circumference with C	B1		
13	(a)		B3	B1 for every correct line of symmetry	6
	(b)		B3	B1 for each correct reflected line.	
14	(a)	East	B2		4
	(b)	West	B2		