DIRECTORATE FOR CURRICULUM,
LIFELONG LEARNING AND EMPLOYABILITY
Directorate for Learning and Assessment Programmes
Educational Assessment Unit
Annual Examinations for Middle Schools 2022

Track 3

YEAR 7 MATHEMATICS MARKING SCHEME

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 trivialized) 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

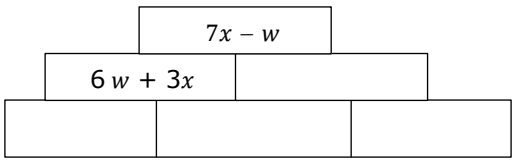
- Incorrect working or statement following a correct answer is ignored.
- Marks are not sub-divisible; no half marks may be awarded.
- Other abbreviations used:
  - o.e. (or equivalent)
  - e.e.o.o. (each error or omission)
- Markers are advised to indicate the M, (M), A or B marks awarded in the body 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)	180 000	B1	3	
	b)	i) 80 000 ii) 200	B1 B1		o.e. (written in words, etc.)
2	a)	$\boldsymbol{a}$ = 360° – (73° + 126° + 111°) = 50°	M1 A1	4	
	b)	No because if all 4 angles are acute, they do not add up to 360°.	B1 B1		
3	a)	True	B1	4	
	b)	False	B1		
	c)	True	B1		
	d)	False	B1		
4	a)	400 – (120 + 70 + 80 + 90) Column up to 40	(M)1 A1	3	
	b)	50	B1		
5	a)	–1°C	B1	4	
	b)	6 – 8 + 9 7	M1 A1		
	c)	1.06	B1		
6		Impossible - e Evens - d Certain - c	B1 B1 B1	3	
7		$70 \div 5$ 14×9 = 126 kg	M1 A1	2	 o.e.
8		+ ÷	B1 B1	2	
TOTAL NON-CALCULATOR PAPER: 25 MARKS					

Main Paper

Quest.		Requirements	Mark		Additional Guidance
1	a)	Multiples of 20 = 20, 40, 60, 80, 100 Multiples of 25 = 25, 50, 75, 100 L.C.M. = 100	(M)1 A1	4	
	b)	1, 3, 5, 15	B2		Award B1 for every 2 correct factors

2	a)	25% $\longrightarrow \frac{1}{4}$ $\frac{3}{4} \longrightarrow$ 75% $\frac{1}{2} \longrightarrow$ 50% 65% $\longrightarrow$ 0.65	B2	2	1 mark for every 2 correct
3	a)	97 – 9 88 ÷ 8 11	(M)1 A1	4	For both steps
	b)	i) 24 ii) 5	B1 B1		
4	a)	$\frac{1}{2}$	B1	4	o.e.
	b)	0	B1		o.e.
	c)	$\frac{1}{3}$	B1		o.e.
	d)	$\frac{5}{6}$	B1		
5	a)		B1 B1	7	
	b)	8 + 4*m*	M1 A1		
	c)	$14x - 35 = 28$ $14x = 63$ $x = 4.5$	M1 (M)1 A1		
6		a = 180° – 36° = 144° interior angles add up to 180°	(M)1 A1 B1	10	
		b = 53° corresponding angles are equal	B1 B1		
		c = 180° – (53° + 36°) = 91° angles in a triangle add up to 180°	M1 A1 B1		
		d = 91° vertically opposite angles are equal	A1 ft B1		
7	a)	i) 12.64 ÷ 8 = 1.58 m	M1 A1	7	For adding and dividing
		ii) 1.66 m	B1		
		iii) (1.58 + 1.66) ÷ 2 = 1.62 m	(M)1 A1		
	b)	1.73 – 1.37 = 0.36 m = 36 cm	M1 A1		

8	a)	$\frac{11}{20} = 0.55$	B1 B1		
	b)	$\frac{55}{100} \times 60$ 33	M1 A1	6	
	c)	€60 – €33 €27	(M)1 A1		
9	a)	$\frac{1}{3} + \frac{1}{4} = \frac{7}{12}$	M1 A1		
	b)	$\frac{40}{100} \times 240 = 96$	M1 A1	7	
	c)	140 + 96 = 236 240 – 236 = 4	M1 M1 A1		M1 for subtraction
10	a)	12:45 – 12:00 45 mins	(M)1 A1		
	b)	12:00 – 7:30 = 4 hrs 30 mins 16:15 – 12:45 = 3 hrs 30 mins 4:30 + 3:30 = 8 hours	(M)1 (M)1 A1	6	
	c)	8 × 5 = 40 hours 40 × 12 = €480	M1 A1		
11	a)	Area of rectangle = L×B = 12×18 = 216 cm² Area of triangle = $\frac{b \times h}{2} = \frac{8 \times 6}{2}$ = 24 cm² Area of shaded part = 216 – 24 = 192 cm²	M1 M1 A1 M1 A1 ft	7	
	b)	V = L × B × H = 7 × 7 × 7 V = 343 cm³	M1 A1		
12	a)	$3x$	B1		
	b)	C = $5x$ + 4($3x$) C = $17x$	M1 A1	5	
	c)	= 17 × 0.35 = €5.95	M1 A1		
13	a)	The coordinates of A are (1,4) and of the coordinates of C are (–3, –1)	B1		
	b)	B(–2, 4)	B1		
	c)	Correct plotting of point D	B1	6	Award mark if label not seen
	d)	Parallel	B1		
	e)	Trapezium	B1		
	f)	Correct coordinates: (any number, 4)	B1		

TOTAL MAIN PAPER: 75 MARKS