

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

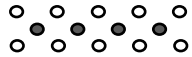
- Incorrect working or statement following a correct answer is ignored.
- Marks are not sub-divisible; no half marks may be awarded.
- Other abbreviations used:
 - * o.e. (or equivalent)
 - * e.e.o.o. (each error or omission)
- Markers are advised to indicate the M, (M), A or B marks awarded in the body 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)	803,270	B1	3		
	b)	164.49	B1			
	c)	23.8	B1			
2		$25\% \longrightarrow \frac{1}{4}$ $\frac{2}{5} \longrightarrow 0.4$ $\frac{3}{4} \longrightarrow 75\%$ $50\% \longrightarrow \frac{1}{2}$	B4	4	–1 e.e.o.o.	
3	a)	– 40 – 20	B1 B1	4		
	b)	– 3 – 2 –5	(M)1 A1			
4	a)	85 ÷ 5	M1	4		
		17 + 47	M1			
	64	A1				
c)	$4m - 3d$	B1				
5		Impossible - e Evens - d Certain - c	B1 B1 B1	3		
6	a)	140°	B1	3		
	b)	$(3 \times 60) + 30$ 210 minutes	(M)1 A1			
7	a)		B3	4	1 mark for every 2 correct entries	
		Multiples of 9				36
		72				90
Multiples of 7		28				35
		56	70			
b)	36	B1				
TOTAL NON-CALCULATOR PAPER: 25 MARKS						

Main Paper

Quest.		Requirements	Mark		Additional Guidance
1	a)	$\frac{1}{6}$	B1	4	o.e.
	b)	0	B1		o.e.
	c)	$\frac{1}{3}$	B1		o.e.
	d)	$\frac{1}{2}$	B1		o.e.

2	a)	<table><tr><td>4</td><td>9</td><td>2</td></tr><tr><td>3</td><td>5</td><td>7</td></tr><tr><td>8</td><td>1</td><td>6</td></tr></table>	4	9	2	3	5	7	8	1	6	B2	6	1 mark for every 2 correct entries																			
	4	9	2																														
	3	5	7																														
8	1	6																															
b)	30 × 50 1500	M1 A1	30 and 50 seen																														
c)	2000 2004	M1 A1	M1 for 2000																														
3		Correct matching	B3	3																													
4	a)	One vertical line of symmetry	B1	3																													
	b)	One vertical line of symmetry One horizontal line of symmetry	B1 B1																														
5	a)	<table><tr><td>Percentage</td><td>Fraction</td><td>Decimal Number</td></tr><tr><td>38%</td><td>$\frac{38}{100}$ or $\frac{19}{50}$</td><td>0.38</td></tr><tr><td>6%</td><td>$\frac{3}{50}$</td><td>0.06</td></tr></table>	Percentage	Fraction	Decimal Number	38%	$\frac{38}{100}$ or $\frac{19}{50}$	0.38	6%	$\frac{3}{50}$	0.06	B4	6	B1 for each correct entry																			
		Percentage	Fraction	Decimal Number																													
		38%	$\frac{38}{100}$ or $\frac{19}{50}$	0.38																													
6%	$\frac{3}{50}$	0.06																															
b)	$\frac{60}{100} \times 720$ 432	M1 A1																															
6	a)	$\frac{4}{5}$, $\frac{48}{60}$	B1 B1	6																													
	b)	$\frac{8 - 5}{12}$ $\frac{3}{12}$ $\frac{1}{4}$	M1 M1 A1																														
		c)	3:25 p.m.		B1	Do not accept 3:25 only.																											
		7	a)		Pattern 4 	B1	4																										
b)	<table><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>white</td><td>4</td><td>6</td><td>8</td><td>10</td><td>12</td><td>14</td></tr><tr><td>grey</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td></tr><tr><td>Total</td><td>5</td><td>8</td><td>11</td><td>14</td><td>17</td><td>20</td></tr></table>		Pattern	1	2	3		4	5	6	white	4	6	8	10	12	14	grey	1	2	3	4	5	6	Total	5	8	11	14	17	20	B1 B1 B1	Both Ptn 3 & 4 correct 12 and 14 seen 17 and 20 seen
	Pattern		1	2	3	4		5	6																								
	white		4	6	8	10		12	14																								
	grey	1	2	3	4	5	6																										
Total	5	8	11	14	17	20																											
a)	4x + 9 = 65	B1	3	o.e.																													
b)	4x = 56 x = 14	(M)1 A1																															
9	a)	Mean: $\frac{30 + 34 + 31 + 29 + 30 + 30 + 35 + 38 + 40}{9}$ 33	M1 A1	7																													

		Mode: 30	B1		
		Numbers in order	M1		
		31	A1		
	b)	40 – 29 = 11	(M)1 A1		
10	a)	9.2	B1	6	
	b)	10	B1		
	c)	i) 9 000 or nine thousand	B1		o.e.
		ii) $\frac{1}{100}$ or 0.01	B1		o.e.
	d)	> =	B1 B1		
11	a)	$A = \frac{b \times h}{2} = \frac{40 \times 19}{2}$ = 380	M1 M1 A1	9	40 and 19 seen Division by 2
	b)	Area of A = L × B = 38 × 10 = 380	M1		
		Area of B = L × B = 20 × 15 = 300	M1		
		Total area = 380 + 300 = 680	M1 A1		
	c)	V = L × B × H = 34 × 28 × 57 = 54 264	M1 A1		
12	a)	Correct drawing	B1	8	± 2°
	b)	$a = 180^\circ - (70^\circ + 49^\circ)$ = 61° angles in a triangle add up to 180°	M1 A1 B1		
		$b = 61^\circ$ vertically opposite angles are equal	A1 f.t. B1		
		$c = 70^\circ$ alternate angles are equal	B1 B1		
13	a)	A (–2, –6) B (1, 3)	B1 B1	4	
	b)	C = (2, 6)	B1		
	c)	Correct plotting	B1		f.t.
14	a)	$\frac{150 \times 8}{12}$ 100 grams	M1 A1	6	o.e.
	b)	$\frac{125 \times 30}{12}$ 312.5 ml	M1 A1		

	c)	$\frac{90}{1000} = 0.09$ $\frac{128}{1600} = 0.08$	M1		
		Option B or The 2 packets of 800gr is the better value for money	A1		
TOTAL MAIN: 75 MARKS					