

**Annual Examinations for Secondary Schools 2015**

**FORM 1**

**MATHEMATICS**

**MARKING SCHEME**

**Notes for Marking of Scripts**

*Types of Marks*

- **M**(ethod) 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. In general a correct method is implied by a correct answer and therefore **when a correct answer is given and no work is shown, no method marks are lost.**
- **A**(ccuracy) marks are 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 (M) or accuracy (A) marks are awarded when a wrong method leads to a correct answer.
- **B** marks are accuracy marks awarded for specific results or statements independent of the method used.

*Misreading*

M marks can still be earned (unless that part of the question is trivialized) but the final A marks are lost.

*Crossed out working*

An answer or working that is crossed out and not replaced is marked as if it was 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.


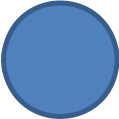
*Other*

- 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, 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

No.	Answers	Marks	Total
1.	a) 2 buttons added in first group 1 button added in second group 3 buttons added in third group	M1 (2 groups correct) M2 (all groups correct)	3
	b) 12	A1	
2.	9.9 – 5.9 matches with 4	B1	4
	2.3 + 3.2 matches with 5.5	B1	
	27 ÷ 3 matches with 9	B1	
	5 – 4 + 2 matches with 3	B1	
3.	a) 86 + 10 (seen or implied) 96	M1 A1	4
	b) 48 – 10 (seen or implied) 38	M1 A1	
4.	a) 96, 24, 4 (placed correctly)	B2 (–1e.e.o.o.)	5
	b) i) – ii) +, –	B1 B1 B1	
5.	13 – 9 (seen or implied) 4	M1 A1	2
	30 ÷ 3 10	M1 A1	
7.	a) 40, 7 75	M1 M1 A1	5
	b) 50c, 20c and (one) 5c coin chosen	B2 (–1e.e.o.o.) (f.t.)	
<b>TOTAL NON CALCULATOR PAPER: 25 MARKS</b>			

# Main Paper

No.	Answers	Marks	Total
1.	a) i)  ii) 	B1 B1	5
	b) i) 46 ii) 138 iii) 1 or 3 or 5 or 15	B1 B1 B1	
2.	a) 9	B1	4
	b) nine	B1 (f.t.)	
	c) $9 - 3 = 6$ (seen or implied) 6 more dots drawn on domino B	M1 A1 (f.t.)	
3.	a) $(10 \times 3) + 6 = 36$	M1 A1	4
	b) 12.3, 9, 7, 1.9, 1.2	B1 (for correct largest or smallest number) B2 (for all numbers correct)	
4.	a) i) <i>a</i> ii) <i>c</i> iii) <i>b</i> and <i>e</i>	B1 B1 B1 (both correct)	9
	b) i) 9.7 ( $\pm 0.2$ cm) ii) $9.7 - 3 = 6.7$ cm (seen or implied) Student draws a line of 6.7 cm ( $\pm 0.2$ cm)	B1 M1 A1 (f.t.)	
	c) i) 1.2 m ii) -2 iii) 30 g	B1 B1 B1	
5.	a) i) 12:15 ii) circle	B1 B1	6
	b) i) 30 ii) Wednesday iii) 4 iv) March	B1 B1 B1 B1	

6.	a)	rectangle, hexagon	B2 (-1 e.e.o.o.)	6												
	b)	Valid attempt at drawing lines of symmetry Correct drawing of all 4 lines	M1(2 lines correct) A1 (all lines correct)													
	c)	Valid attempt at completing the shape Correct drawing of shape	M1 (4 squares correct) A1(all correct)													
7.	b)	Certain	B1	4												
	c)	Unlikely	B1													
	d)	Evens	B1													
	e)	Impossible	B1													
8.	a)	<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th style="width: 60%;">Zoo Animals</th> <th style="width: 40%;">Number</th> </tr> </thead> <tbody> <tr> <td>Zebra </td> <td>5</td> </tr> <tr> <td>Flamingo </td> <td>6</td> </tr> <tr> <td>Monkey </td> <td>7</td> </tr> <tr> <td>Lion </td> <td>9</td> </tr> <tr> <td><b>Total animals</b></td> <td><b>27</b></td> </tr> </tbody> </table>	Zoo Animals	Number	Zebra	5	Flamingo	6	Monkey	7	Lion	9	<b>Total animals</b>	<b>27</b>	B4 (-1e.e.o.o.)	8
	Zoo Animals	Number														
	Zebra	5														
	Flamingo	6														
	Monkey	7														
Lion	9															
<b>Total animals</b>	<b>27</b>															
b)	Lion	B1														
c)	Bar chart filled correctly	B3 (-1e.e.o.o.) (f.t.)														
9.	a)	i) Butterfly correctly divided in half Half the butterfly shaded correctly ii) Yes	M1 A1 B1	5												
	b)	$\frac{1}{5}$ of 30 6	M1 A1													
10.	a)	$4.4 + 2.8 + 2.8 + 2.7$ 12.7	M1 A1	6												
	b)	Valid attempt at adding more squares 3 squares added	M1 A1													
	c)	Valid attempt at finding volume of the shape 20	M1 A1													

11.		cone cylinder cuboid	B1 B1 B1	3
12.	a)	2	B1	4
	b)	- 3	B1	
	c)	22 - 11 (seen or implied) 11	M1 A1	
13.	a)	Flag drawn correctly to the north of the boat	B1	5
	b)	i) south	B1	
		ii) boat	B1	
c)	2 squares east	B1 B1		
14.	a)	(7, 3)	B1	6
	b)	Plotting points B, C and E correctly	M2 (-1e.e.o.o.)	
		Joining points correctly	A1	
c)	i) rectangle	B1		
	ii) triangle	B1		
<b>TOTAL MAIN PAPER: 75 MARKS</b>				