YEAR 8	MATHEMATICS	Marking Scheme

Aids 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 mark 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 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 mark scheme.

Other

- ➤ Incorrect working or statements following a correct answer are ignored.
- ➤ Marks are not sub-divisible; no half marks may be awarded.
- ➤ Other abbreviations used:
  - o o.e. (or equivalent)
  - o 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 (Total: 25 Marks)

Quest.		Requirements	Mark		Additional Guidance
1		$2.5 \times 8 = 20$	B1	**4**	Award mark if working (**seen**) is correct but arrow not seen or arrow points to incorrect number.
		$53.4 + 36.6 = 90$	B1		
		$100 \div 2 = 50$	B1		
		$70\,000 \div 1000 = 70$	B1		
2	a)	$786 + 209$	M1	**4**	seen or implied
		995	A1		
	b)	$947 - 163$	M1		seen or implied
		784	A1		
3	a)	a whole turn	B1	**2**	
	b)	$180°$	B1		
4	a) i)	isosceles	B1	**4**	
	a) ii)	equilateral	B1		
	a) iii)	right-angled	B1		
	b)	quadrilateral	B1		
5		Positive Numbers → +8, 15, 17 above zero Negative Numbers → −7, 4 below zero	B5	**5**	−1 for e.e.o.o.
6	a)	Valid attempt at finding $\frac{3}{7} \times 21$	B1	**3**	seen or implied
		Correct shading of any 9 parts	B1		
	b)	9	B1		
7	a) i)	3.50	B1	**3**	
	a) ii)	7.50	B1		
	b)	1.50	B1		

MAIN PAPER (Total: 75 Marks)

Quest.		Requirements	Mark		Additional Guidance
1	a)	80	B1	**3**	
	b)	700	B1		
	c)	37	B1		
2	a)	Valid attempt at finding correct operation. +	M1 A1	**6**	seen or implied
	b)	Valid attempt at finding correct operation. ×	M1 A1		seen or implied
	c)	Valid attempt at finding correct operation. ÷	M1 A1		seen or implied
3	a) i)	4.7	B1	**4**	
	a) ii)	5.3	B1		
	b)	5.3 − 4.7 0.6	M1 A1		f.t.
4		3.1, 3.12, 31.2, 312	B3	**3**	B1 for correct smallest number B1 for correct biggest number B1 for all correct
5	a)	$\frac{3}{8}$	B2	**4**	B1 for correct numerator B1 for correct denominator
	b)	$\frac{5}{8}$	B2		B1 for correct numerator B1 for correct denominator
6	a)	€6 = 600c 600 ÷ 10 60	M1 M1 A1	**4**	seen or implied seen or implied
	b)	Any valid reason [Karl sells apples at 70 cent/kg and Michael sells apples at 60 cent/kg. So, Michael's apples are cheaper].	B1		
7	a) i)	Correct plotting of points	M3	**8**	−1 for e.e.o.o.
	a) ii)	Joining of points	A1		
	b)	Correct reflection	B3		f.t. −1 for e.e.o.o.
	c)	Kite	B1		

Quest.		Requirements	Mark		Additional Guidance
8	a) i)	Any two from 6, 8, 10, 16	B2	**12**	−1 for e.e.o.o.
	a) ii)	5, 10	B2		−1 for e.e.o.o.
	a)iii)	9, 16	B2		−1 for e.e.o.o.
	a)iv)	Any two from 3, 5, 11	B2		−1 for e.e.o.o.
	b) i)	True	B1		
	b) ii)	False	B1		
	b)iii)	True	B1		
	b)iv)	False	B1		
9	a)	180° − 40° 140°	M1 A1	**8**	seen or implied
	b)	90° + 90° + 107° = 287° 360° − 287° 73°	M1 M1 A1		seen or implied
	c)	85° + 70° = 155° 180° − 155° 25°	M1 M1 A1		seen or implied
10	a) i)	3 lines of symmetry	B2	**9**	B1 for 1 or 2 correct lines of symmetry B1 for all lines of symmetry correct
	a) ii)	4 lines of symmetry	B2		B1 for 1, 2 or 3 correct lines of symmetry B1 for all lines of symmetry correct
	a)iii)	2 lines of symmetry	B2		B1 for 1 correct line of symmetry B1 for all lines of symmetry correct
	b)	1st shape → No L. O. S. 2nd shape → Has L. O. S. 3rd shape → Has L. O. S.	B3		−1 for e.e.o.o.
11	a) i)	acute	B1	**6**	
	a) ii)	obtuse	B1		
	b) i)	right angle	B1		
	b) ii)	reflex angle	B1		
	c)	Correct drawing of 60°	B2		accept difference of ±2°
12	a)	3, 5, 6	B3	**8**	−1 for e.e.o.o.
	b)	Correct plotting Joining	B3 B1		f.t. −1 for e.e.o.o.
	c)	No	B1		f.t.