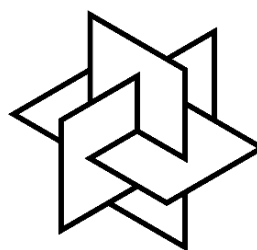


---

CE AT 13+

# MATHEMATICS



**ISEB**  
Independent Schools  
Examinations Board

## Core Non-Calculator Specimen Paper Mark Schemes

---

Date

### Information

**This is a suggested, not prescriptive, mark scheme.**

Full marks should not be awarded to answers unsupported by necessary working.

Marks should be deducted for mathematically incorrect working.

**A maximum of 1 mark per question should be deducted for incorrect/missing units up to a maximum of 3 marks per paper (excluding explicit units questions.)**

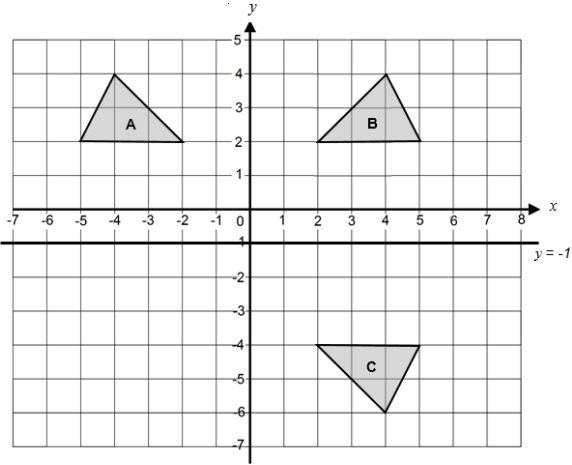
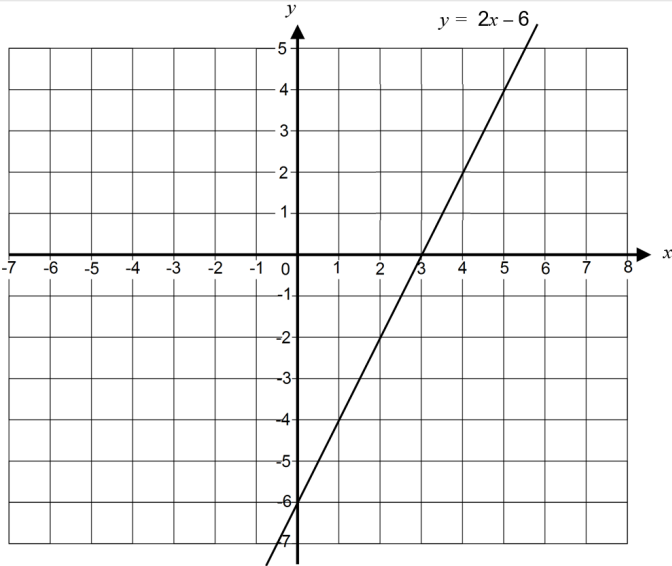
Credit should be given for good attempts and ideas.

ISEB makes every reasonable effort to obtain clearance to reproduce all third-party content that it uses in its assessment material. In the event that it has inadvertently used material without permission, or failed to acknowledge the copyright owner correctly, ISEB will be pleased to make appropriate amendments at the earliest possible opportunity.

All copyright acknowledgements are reproduced online in the ISEB Copyright Acknowledgement Booklet. This is produced for each series of examinations and is freely available to download at [www.iseb.co.uk](http://www.iseb.co.uk) after the live examination series.

# CORE MATHEMATICS: NON-CALCULATOR

Q.	Answer	Mark	Additional Guidance
1. a)	i) $6.4 < 6.8$ ii) $8.7 > 8.14$ iii) $5.9 > 5.09$ iv) $7.6 = 7.60$ v) $32.4 > 3.24$ vi) $\frac{3}{5} = \frac{6}{10}$	4	A: 4 deduct 1 mark for each error
b)	i) seventy ii) seven hundredths	2	A: 2
c)	$a = 3.4$ $b = 3.65$	2	A: 2
2.	i) 11            ii) 50            iii) 6	6	M: 3 A: 3
3.	i) 4.81            ii) 34.08            iii) 1.52	6	M: 3 A: 3
4.	i) 2 048            ii) 64 iii) 1 024            iv) 208 000	4	A: 4
5.	i) 200            ii) 6 kg	5	M: 3 A: 2 must have units
6.	i) $144 \text{ cm}^2$ ii) $30 \text{ cm}^2$	6	M: 4 A: 2 must have units
7.	i) 0.6            ii) 0.35	4	M: 2 A: 2
8. a)	i) $2 \times 2 \times 2 \times 3 \times 3$ ii) $2 \times 2 \times 3 \times 3 \times 5$	4	M: 2 A: 2 allow indices
b)	5	1	A: 1
9.	i) $\frac{3}{4}$ ii) $\frac{13}{18}$ iii) $7\frac{1}{2}$	6	M: 3 A: 3
10.	20	3	M: 2 A: 1
11.	i) 7            ii) 11 iii) 12            iv) 82	8	M: 4 A: 4
12.	i) $z = 7$ ii) $m = 3\frac{2}{3}$	4	M: 2 A: 2
13.	i) 48            ii) 5	4	M: 2 A: 2

Q.	Answer	Mark	Additional Guidance
14.	$p = 180 - 114$ $= \underline{66^\circ}$ $s = 180 - 132$ $= \underline{48^\circ}$ $w = \underline{66^\circ}$	<b>5</b>	M: 2 A: 3
15.			
	i) B drawn and labelled	<b>2</b>	A: 8
	ii) C drawn and labelled	<b>3</b>	deduct 1 for lack of labels
	iii) (0, -1) , 180°	<b>3</b>	deduct 1 for lack of bracket or comma
16.			
	$y = 2x - 6$ drawn	<b>3</b>	A: 3 credit e.g. table of values accept no working

Q.	Answer	Mark	Additional Guidance
17.	6	3	M: 2 A: 1
18. a)	40	3	M: 2 A: 1
b)	15	1	A: 1
c)	11	2	M: 1 A: 1
18.	<i>Trump's Original</i> : $38p \times 9 = £3.42$ <u><i>Trump's Original</i></u> is better value	3	M: 2 A: 1 must have units
19.	£7 169	3	M: 2 A: 1 must have units
<b>Total</b>		<b>100</b>	