

Bronze Level

Mark Scheme 3

Level	IGCSE
Subject	Maths
Exam Board	Edexcel
Difficulty Level	Bronze
Booklet	Mark Scheme 3

Time Allowed: 58 minutes

Score: /48

Percentage: /100

Grade Boundaries:

9	8	7	6	5	4	3	2	1
>95%	85%	75%	65%	55%	45%	35%	25%	<25%

Question	Working	A n s w e r	Mark	Notes
1.	$\frac{135}{180}$		3	M1
	0.75 oe			A1
		45		A1 cao
	Total 3 marks			
2.	4x = 7 or 4x = 2 + 5 or 7x - 3x = 7 oe or 4x - 7 = 0 oe		3	M2 for correct rearrangement with x terms on one side and numbers on the other AND collection of terms on at least one side or for 4x - 7 = 0 oe M1 for 7x - 3x = 2 + 5 oe ie correct rearrangement with x terms on one side and numbers on the other
		$1\frac{3}{4}$ oe		A1 Award full marks for a correct answer if at least 1 method mark scored
	Total 3 marks			
3.	1 7 7		3	B2 for 1 7 7 in any order B1 for three positive whole numbers with either a median of 7 or a sum of 15 SC Award B1 for 0 7 8
		6		B1 cao
	Total 3 marks			
4.	One correct point plotted or stated		4	B1 May appear in table
	2nd correct point plotted or stated			B1 May appear in table
		Correct line between x = -2 and x = 4		B2 B1 for a line joining two correct, plotted points
	Total 4 marks			

5.	(a)	Rotation	3	B1	These marks are independent but award no marks if the answer is not a single transformation
		90°		B1 Also accept quarter turn or -270° (B0 for 90° clockwise)	
		(0, 0)		B1 Also accept origin, <i>O</i>	
	(b)	R correct	1	B1	
	(c)	Rotation 90°	2	B1 Accept quarter turn or -270° instead of 90°	As for (a)
		(3, 1)		B1 ft from their R if it is a translation of the correct R	
Total 6 marks					

6.	(a)	$54 \times \frac{5}{6}$	2	M1	for 54×5 or 270 or $54 \div 6$ or 9 or $\frac{5}{6}$ oe or $\frac{6}{5}$ oe
			45	A1	cao
	(b)	ratio 36 : 5400 oe inc 0.36 : 54, 36 cm : 5400 cm, 0.36 m : 54 m (condone omission of units from one side) or fraction $\frac{5400}{36}$ oe inc $\frac{54 \text{ m}}{0.36 \text{ m}}$ (condone omission of units from either numerator or denominator)	3	M2	M1 for ratio or fraction with no units 0.36 or 3.6 or 36 or 360 or 3600... : 0.54 or 5.4 or 54 or 540 or 5400 ... oe $\frac{0.54 \text{ or } 5.4 \text{ or } 54 \text{ or } 540 \text{ or } 5400 \dots}{0.36 \text{ or } 3.6 \text{ or } 36 \text{ or } 360 \text{ or } 3600 \dots}$ oe eg 36 : 54, $\frac{54}{36}$, 36 : 540, $\frac{540}{36}$, 360 : 54, $\frac{54}{360}$, 1 : 1.5, $54 \div 36$, 1 : 0.15
			150	A1	cao Do not award A1 for 150 cm, 150 <i>n</i> etc
Total 5 marks					

7.	(a)	$2 \times (-3)^2 + 4 \times (-3)$ or $2 \times -3^2 + 4 \times -3$ or $2 \times 9 - 4 \times 3$ or $18 - 12$ or $18 + - 12$		2	M1	for substitution or for correct evaluation of either 18 or -12		
			6		A1	cao		
	(b)	$38 = 2 \times 4^2 + 4k$ or $(k) = \frac{A - 2x^2}{x}$ oe		3	M1	for correct substitution or rearrangement	SC M2 for $\frac{38 - 32}{4}$	
		$4k = 38 - 32$ or $4k = 6$			M1	for correct rearrangement of correct substitution		
			1.5 oe		A1			
							Total 5 marks	

8.		$5.6^2 + 3.7^2$ or $31.36 + 13.69$ or 45.05		3	M1	for squaring and adding		
		$\sqrt{5.6^2 + 3.7^2}$			M1	(dep) for square root		
			6.71		A1	for answer rounding to 6.71		
							Total 3 marks	

9.			1 3 8	2	B2	for 1 3 8 in any order B1 for three positive whole numbers with either a sum of 12 or a range of 7 SC Award B1 for 0 5 7		
							Total 2 marks	

10.	Lines $x = 5$ and $y = 3$ drawn		3	B1	Lines may be full or broken
	Line $y = x$ drawn			B1	Ignore additional lines
		R shown		B1	Condone omission of label Accept shading in or shading out, if consistent Award full marks for correct region labelled R even if no shading
					Total 3 marks

11.	$9 \times \text{height} = 36$		4	M1	
	height = 4			A1	
	$36 + \frac{1}{2} \times 5 \times 4$ or $\frac{14+9}{2} \times 4$			M1	
		46		A1	cao
					Total 4 marks

12.	(a)	$\frac{1639}{3440} \times 100$		2	M1	for $\frac{1639}{3440}$ or 0.476...
			47.6		A1	for ans rounding to 47.6
	(b)	$\frac{3440}{1.376}$ or $3440 \times \frac{100}{137.6}$ oe		3	M2	for $\frac{3440}{1.376}$ or $3440 \times \frac{100}{137.6}$ oe M1 for $\frac{3440}{137.6}$ or $137.6\% = 3440$ or $\frac{3440}{x} = 1.376$ or $3440 = 1.376x$ or 25 seen
			2500		A1	cao
						Total 5 marks

13.	$7.92 \div 1.65$	4.8 oe	2	M1	M1 for 7.92 or 1.65
				A1	Accept $\frac{24}{5}$
					Total 2 marks