

Bronze Level

Mark Scheme 9

Level	IGCSE
Subject	Maths
Exam Board	Edexcel
Difficulty Level	Bronze
Booklet	Mark Scheme 9

Time Allowed: 56 minutes

Score: /46

Percentage: /100

Grade Boundaries:

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

Question	Working	Answer	Mark	Notes
1 (a)		y^5	1	B1 cao
(b)	$4x + 12 > 8$ or $x + 3 > 2$		2	M1
		$x > -1$		A1
				Total 3 marks

Question	Working	Answer	Mark	Notes
2. (a)	$840 : 40$ oe or $840 \div 40$ oe or $1 : 21$	21	2	M1 A1 Accept 21 : 1
(b)	$(105 \div 3) \times 2$	70	2	M1 A1 M1 for $105 \div 3 (=35)$
(c)	$(105 \div \{4+3\}) \times 3$	45	2	M1 A1 M1 for $105 \div (4+3) (=15)$
				Total 6 marks
3. (a)	$0.5 \times (11 + 7) \times 10$	90	2	M1 A1 M1 for $(0.5 \times 2 \times 10) + (7 \times 10) + (0.5 \times 2 \times 10)$
(b)	"90" $\times 12$	1080	2	M1 ft A1 ft Their area in (a) $\times 12$
				Total 4 marks
4.	$18y + 30 = 39$ or $3y + 5 = 6.5$ $18y = 39 - 30$ or $3y = 6.5 - 5$	0.5 oe	3	M1 M1 A1 M1 for correct expansion $\{18y + 30\}$ Dependent on at least one M1
				Total 3 marks
5.	$(0 \times 2) + 1 \times 10 + 2 \times 7 + 3 \times 6 + 4 \times 3 + 5 \times 2$ "64" $\div 30$	2.13 rec oe	3	M1 M1 A1 M1 for 5 correct products stated or evaluated Dependent on first M1 Accept 2.1 or better with no working. Accept 2 if M2 awarded.
				Total 3 marks
6.		rotation 90° clockwise or -90° {centre} (0,0) or O or origin	3	B1 B1 B1 accept 270° or 270° anticlockwise. Award no marks if multiple transformations. condone lack of brackets around 0,0
				Total 3 marks

7. (a)		k^5	1	B1	
(b)		$14t - 6$	1	B1	Mark response on answer line or final statement in body of script, do not isw.
(c) (i)		$8y + 24 - 6y + 21$ $2y + 45$	2	M1 A1	M1 for 3 terms with correct signs or 4 terms without signs Mark response on answer line or final statement in body of script, do not isw.
(c) (ii)		$x^2 - 6x - 4x + 24$ $x^2 - 10x + 24$	2	M1 A1	M1 for 3 terms with correct signs or 4 terms without signs Mark response on answer line or final statement in body of script, do not isw.
(d)		v^6	2	M1 A1	or v^7 / v or $v^4 \times v^2$ or v^{11} / v^5
					Total 8 marks

8.	$3.2 \times 3.2 (= 10.24)$ $\pi \times 5^2 (= 78.5\dots)$ { $\pi = 3.14$ or better } $\pi \times 5^2 - 3.2 \times 3.2$	68.3	4	M1 M1 M1 A1	Area of square. Area of circle, accept awrt 78.5 → 78.6 incl. Intention to subtract areas from correct methods. Accept awrt 68.3 or 68.4
					Total 4 marks

9. (a) (i)		6, 12	1	B1	
(a) (ii)		2, 3, 5, 6, 7, 9, 11, 12	1	B1	Withhold mark for repeat elements.
(b)		No Universal set has only numbers less than 13	1	B1	Dependent on “No” box indicated. (idea that 14 does not belong to \mathcal{E})
					Total 3 marks

Question	Working	Answer	Mark	Notes
10. (a)		3^5	1	B1 cao
(b)	$\frac{7^{14}}{7^6}$ or $\frac{7^9}{7^{(1)}}$ or $7^5 \times 7^3$			M1
		7^8	2	A1
				Total 3 marks
11.	$4 + 6 + 4 + 7 + 8 + 6 + 7 + 7 (= 49)$ or $9 \times 6 (=54)$ $\frac{"49 + a"}{9} = 6$ oe or "54" – "49"			M1 M1 for $4 + 6 + 4 + 7 + 8 + a + 6 + 7 + 7 = 49 + a$
		5	3	M1 dep
				A1
				Total 3 marks
12. (a)		28	1	B1
(b)	$36 + 28$ or $36 + "28"$ or $180 - 116$			M1 ft their answer from (a)
		64	2	A1 "116" from $180 - (36 + 28)$
				Total 3 marks