

Mark Scheme (Results) Summer 2008

IGCSE

IGCSE Mathematics (4400) Paper 2F

Summer 2008 IGCSE Maths Mark Scheme - Paper 2F

Q	Working	Answer	Mark	Notes
1. (a)		800, 888, 1008, 1080, 1800	1	B1 This order
(b)		-7	1	B1
(c)		8, 14	2	B1B1 -B1 each extra
(d)		1, 5, 7, 35	2	B2 B1 for any two, with no extras.
				Total 6 marks

2. (a)		12	1	B1
(b)		7	1	B1
(c)		Dave's Sports	1	B1 or Sports or Dave or the 4 th one
(d)		4 ¹ / ₄ circles drawn	1	B1 Allow if intention clear
				Total 4 marks

3. (a)		5/8	1	B1
(b)		3 sectors shaded	1	B1 Allow if intention clear
				Total 2 marks

4.	(a)(i)		48, 96	2	B1B1f	Allow written in the sequence, with nothing on line or with 192, 384 on line ft dep on first number ≥ 24
	(a)(ii)		x 2 oe	1	B1	or doubling etc
	(b)(i)		8, 6	2	B1B1d	ep
	(b)(ii)		0	1	B1	
	(b)(iii)	10 - 99x2 oe	-188	2	M1 A1	Allow 10 - 100x2 or -190 cao
						Total 8 marks

5.	(a)		Isosceles	1	B1	Allow any recognisable spelling
	(b)		B & D	1	B1	
	(c)(i)		Enlargement	1	B1	or enlarge or enlarged or enlarging etc
						Total 3 marks

6.	(i)	Mark A	A at 0.5	1	B1	If no cross, mark the point on the line level with the centre of the letter. If no letters shown, no marks.
	(ii)	Mark B	B at 1	1	B1	
	(iii)	Mark C	C 1cm - 3cm from O	1	B1	
						Total 3 marks

7.	(a)(i)		m or cm	1	B1	
	(a)(ii)		tonnes or kg	1	B1	Not ton
	(a)(iii)		m ² , are, hectare	1	B1	or metre squared or square metre
	(b)	5.2 x 10 000	52 000	2	M1 A1	or 100 × 100
						Total 5 marks

8.	(a)	12 - (-4) or 12 + 4 or -16				Allow without bracket
			16	2	M1 A1	
	(b)	-4 -3				
			-7	2	M1 A1	
						Total 4 marks

9.	(a)		1525	1	B1	Allow with any punctuation or none
	(b)	Attempt difference 3:25 to 5:10 1 hour + 35 min + 10 min				
			1h 45mins	3	M1 M1 A1	Accept 1.85, 1hr 85min, 2.15, 2hr 15min or 60 + 35 + 10, 120 - 15, 2hr - 15min cao
						Total 4 marks

10.	(a)		70	1	B1
	(b)	$180 - (30 + 70)$	80	2	M1 A1f ft "70" if used.
	(c)	$360 - (70 + 130 + 85)$	75	2	M1 A1 or 360 - 285
					Total 5 marks

11.	(a)	Measure angles for walk & bike "90"/ "60" x 28 oe	42 (\pm 2)	3	M1 Walk 60, Bike 90, allow 2° error M1 Accept "90"/"60", "60"/"90", "60"/"28", "2.14", "28"/"60", "0.466" A1 Integer required
	(b)	$50/150 \times 360$	120°	2	M1 Accept 50/150, 150/50, 360/150, 150/360 A1 cao
					Total 5 marks

12.	(a)	580×0.10 or 58(.00) + 4	£62.(00)	3	M1 M1 dep A1
	(b)	$78.60 - 4(.00)$ or $78.60/0.10$ "74.60" / 0.10 oe	746(.00)	3	M1 M1 A1 786 - 40
					Total 6 marks

13.	(a)		3:5	1	B1	or 3 to 5
	(b)	15/40	$\frac{3}{8}$	2	M1 A1	or 0.375 or 37.5% cao
						Total 3 marks

14.	(a)		6	1	B1	
	(b)	$8w = 17 + 7$	3	2	M1 A1	
	(c)	$6x - 2x = 7 - 13$ or $2x - 6x = 13 - 7$ $4x = -6$ or $-4x = 6$	$x = -1 \frac{1}{2}$ oe	3	M1 M1 A1	$6x - 2x + 13 - 7 = 0$ or $2x - 6x - 13 + 7 = 0$ Accept $-6/4$ or $-3/2$ (not $6/-4$ or $3/-2$)
	(d)	$y - 2 \times 5 = 4 \times 5$ or $y/5 = 4 + 2$	$y = 30$	2	M1 A1	
						Total 8 marks

15.	(a)		250 ± 2	2	B2	B2 for angle 248 to 252 inclusive. B1 for angle 190 to 260 inclusive
	(b)		305 ± 3	2	B2	Award B1 for a bearing $270^\circ < \text{angle} < 360^\circ$
						Total 4 marks

16.	(a)	$20/2$ or $(20 + 1)/2$	6	2	M1 A1
	(b)		Yes, no or not nec'y with consistent reason	2	B2 Can't tell B1
					Total 4 marks

17.	(a)	$3 - 5 \times -2$	13	2	M1 A1
	(b)		$5y - 10$	1	B1
	(c)		$w(w + 5)$	2	B2 B1 for two factors that multiply to give at least one correct term. SC $w(w + 5w)$ B1
					Total 5 marks

18.	(a)	30×0.2	6	2	M1 or $30 \div 5$ A1
	(b)	$0.2 + 0.1$	0.3 oe	2	M1 A1
					Total 4 marks

19.	8/12 or 3/12	$\frac{8}{12}, \frac{3}{12}$	2	M1 A1	Accept (4x2)/(4x3) or (3x1)/(4x3) SC Multiply bs by 12 B1 Decimal methods M0 A0
Total 2 marks					

For other responses not covered by this mark scheme but which, in your opinion, may be worthy of credit, send to review.

20.	(a)	3^{14}	1	B1	
	(b)	7^3	1	B1	
	(c)	$5^n = \frac{5^2 \times 5^7}{5^3}$ or $n + 3 - 7 = 2$ $n = 6$	2	M1 A1	Accept $5^{n+3} = 5^9$
Total 4 marks					

21.	$\frac{1}{2} \times 3 \times 4$ 3 x 15 and 4 x 15 and 5 x 15	192	4	M1 M2 A1	M1 for any ONE of these cao
Total 4 marks					

22.	$8x = 12$ or $8y = -4$	$x = 1.5$ oe $y = -0.5$ oe	3	M1 A1 A1	Eliminate one variable correctly. Accept $3x + 5x - 8 = 4$ or $5(4 - y)/3 - y = 8$ oe
Total 3 marks					

23.	(a)	4.8	1	B1
	(b)	$5^2 - "4.8"^{*2}$ or 1.96 $\sqrt{(5^2 - "4.8"^{*2})}$	1.4	3 M1 M1dep A1 cao
				Total 4 marks