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Mark Scheme (Results)
Summer 2008

IGCSE

IGCSE Mathematics (4400) Paper 2F

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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 4th 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	B1B1dep	
	(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	 16	 2	 M1 A1	Allow without bracket
	(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 (± 2)	3	M1 M1 A1	Walk 60, Bike 90, allow 2° error Accept "90"/"60", "60"/"90", "60"/"28", "2.14", "28"/"60", "0.466" Integer required
	(b)	50/150 x 360	120°	2	M1 A1	Accept 50/150, 150/50, 360/150, 150/360 cao
						Total 5 marks

12.	(a)	580 x 0.10 or 58(.00) + 4	£62.(00)	3	M1 M1 A1	 dep
	(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	$^3/_8$	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 $270^o <$ angle $< 360^o$
						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 x -2	13	2	M1 A1	
	(b)		5*y* - 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* + 5*w*) B1
						Total 5 marks

18.	(a)	30 x 0.2	6	2	M1 A1	or 30 ÷ 5
	(b)	0.2 + 0.1	0.3 oe	2	M1 A1	
						Total 4 marks

19.	8/12 **or** 3/12	$^{8}/_{12}$, $^{3}/_{12}$	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.	½ x 3 x 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.	8*x* = 12 or 8*y* = -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