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Mark Scheme (Pre-Standardisation)
Summer 2008

IGCSE

IGCSE Mathematics (4400/2F)

General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

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. Ignore 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
	(a)(ii)		x 2 oe	**1**	B1	or doubling etc
	(b)(i)		8, 6	**2**	B1B1f	
	(b)(ii)		0	**1**	B1	
	(b)(iii)	10 – 99x2	 -188	 **2**	M1 A1	Allow 10 – 100x2 or 190 Rptd subtr: -186 or -190: SC B1
						Total 8 marks

5.	(a)		Isosceles	**1**	B1	Allow mis-spellings if their word sounds about right
	(b)		B & D	**1**	B1	
	(c)(i)		Enlargement	**1**	B1	or enlarge or enlarged or enlarging etc
						Total 3 marks

6.	(i)		A mkd at 0.5 (± 2mm)	**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)		B mkd at 1 (± 2mm)	**1**	B1	
	(iii)		C mkd, 0.1 to 0.4	**1**	B1	
						Total 3 marks

7.	(a)(i)		m or cm	**1**	B1	or m & cm, or metre and/or centimetre
	(a)(ii)		tonnes or kg	**1**	B1	or kilogram
	(a)(iii)		m^2 or hectares	**1**	B1	or metre squared or square metre
	(b)	5.2 x 10 000	52 000	**2**	M1 A1	or 5.2 × 100 × 100
						Total 5 marks

8.	(a)	12 – (-4) or att. count from –4 to 12	16	**2**	M1 A1	Allow without bracket or 15 or 17 for M1 only
	(b)	-4 –3 or att. count 3 down from -4	-7	**2**	M1 A1	or –6 or -8 for M1 only
						Total 4 marks

9.	(a)		1525	**1**	B1	Allow with any punctuation or none

	(b)	Attempt subtr 3:25 from 5:10 1 hour and *n* mins ($n < 60$)	1h 45mins	**3**	M1 M1 A1	Eg 1h 85m scores M1M0A0
						Total 4 marks

10.	(a)		70	**1**	B1	
	(b)	180 – (30 + 70)	80	**2**	M1 A1f	ft his "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	42 (± 3)	**3**	M1 M1 A1	oe
	(b)	50/150 x 360	120°	**2**	M1 A1	oe
						Total 5 marks

12.	(a)	580 x 0.10 or 58(.00) + 4	£62.(00)	**3**	M1 M1 A1	
	(b)	78.60 – 4(.00) "74.60" / 0.10	746(.00)	**3**	M1 M1 A1	
						Total 6 marks

13.	(a)		3:5	**1**	B1	or 3 to 5
	(b)	40 seen	$^{3}/_{8}$ or $^{15}/_{40}$	**2**	M1 A1	or 8 seen from 3:5 or 0.375 or 37.5%
						Total 3 marks

14.								T & I: Full mks or 0 Embedded ans: Lose A or B mk
	(a)	2.4	F		6	**1**	B1	
	(b)	2.4	E	$8w = 24$	3	**2**	M1 A1	
	(c)	2.4	D	$6x - 2x = 7 - 13$ or $4x + 6 = 0$ $4x = -6$ or $-4x = 6$	$x = -1.5$ oe	**3**	M1 M1 A1	attempt collect x's and constants
	(d)	2.4	C	$y - 10 = 20$ or $y/5 = 6$ oe	$y = 30$	**2**	M1 A1	
								Total 8 marks

15.	(a)	4.4	D		250±2	**2**	B2	B2 for angle 248 to 252 inclusive. B1 for angle 190 to 260 inclusive
	(b)	4.4	D		305	**2**	M1 A1	125 + 180 or mark C, bearing 90 to 180 exact
								Total 4 marks

16.	(a)	Attempt find 10th &/or 11th	6	**2**	M1 A1	
	(b)		No or not nec'y oe Some may have both	**2**	B1 B1	dep on 2nd B1 or Yes, if none have both: B2
						Total 4 marks

17.	(a)	3 - 5x(-2)	13	**2**	M1 A1	Allow omission of bracket
	(b)		$5y - 10$	**1**	B1	
	(c)		$w(w + 5)$	**2**	B1B1	$w(\ )$: B1 $(w + 5)$: B1

						Total 5 marks

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

19.	(a)	Attempt change to common denom of 12 or mult of 12	$^{8}/_{12}$, $^{3}/_{12}$	**2**	M1 A1	
						Total 2 marks

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

21.		½ x 3 x 4 3 x 15, 4 x 15, 5 x 15 2 x tri + 3 diff rects	192	**4**	M1 M1 M1 A1	any one or 12 x 15 can be implied
						Total 4 marks

22.		$8x = 12$	$x = 1.5$ oe $y = -0.5$ oe	**3**	M1 A1 A1	allow $8x = c$ No working, $x = 1.5$: M1A1
						Total 3 marks

23.	(a)		4.8	**1**	B1	or 48mm
	(b)	5^2 - "4.8"^{2} or x^2 + "4.8"^{2} = 25^2 $\sqrt{}$(5^2 - "4.8"^{2})	 1.4	 **3**	M1 M1dep A1	or 1.96.
						Total 4 marks