



## Free Standing Maths Qualification

### Making Sense of Data 6983

#### *Foundation Level*

## Mark Scheme

### *2006 examination – January series*

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## Making Sense of Data

Free-Standing Mathematics Qualifications  
 Foundation Level: Making Sense of Data (6983)  
 January 2006

### Answers and Marking Scheme

#### Question 1

(a)	33	B1	
(b)	14	B1	
(c)	19	B1	ft (a) – (b) and one correct
(d)	23	B1	
(e)	In order: 14, 15, 17, 18, 22, 23, 23, 25, 29, 33	M1	
	Median is 22.5	M1 A1	Know 22 and 23 to consider
(f)	Total is 219	B1	
	Mean = $\frac{219}{10}$	M1	
	= 21.9	A1	
	<b>TOTAL</b>	<b>10</b>	

#### Question 2

(a)	Suitable scales	B1	Accept scale starting at (0, 30) etc B1 for at least 4 correct
	Plotting points	B2	
(b)	The points do not lie on a straight line which passes through the origin.	B1	Need 'line' and 'origin'
	<b>TOTAL</b>	<b>4</b>	

**Question 3**

Sport	Tally	Frequency
Athletics	11 1	3
Cricket	1	1
Football	<del>    </del> <del>    </del>	10
Hockey	11	2
Rugby	111	3
Swimming	<del>    </del>	5
Tennis	1	1

(a)	Completion of tally and frequency column	B2	B1 for 2 correct
(b)	Total frequency is 25	B1	
(c)	Label axes	B1	Sport must be under or with relevant bar
	Accurate heights	B2	B1 for 4 correct
	Suitable scale	B1	Accept 1 per cm or 2 per cm only. If use original data, total 22, max mark is B2
(d)	Use of half symbol	B1	SC1 for use of $\frac{1}{2}$ for 10 people which includes a key
	Accurate number of symbols and pictogram	B1	
	Suitable labels	B1	Delete B1 if a vertical scale is used e.g. 0,10,20,30,40,50
	<b>TOTAL</b>	<b>10</b>	

**Question 4**

	A	B	C	D	E
1	Bank	Number of branches in 1995	Number of branches in 2000	Number of branches closed	Percentage of branches closed
2	Barclays	2050	1727	323	15.8
3	HSBC	1701	1668	33	1.9
4	Lloyds	2858	2200	658	23.0
5	NatWest	2215	1643	572	25.8

	Column D	B1	
	Any in column E; e.g. $\frac{323}{2050} \times 100$	M1	
	= 15.8%	A1	Within 0.1 of answer
	Others in E	A1	Within 0.1 of answer
	Use of one decimal place	B1	All correct as required SC1 for consistent dp error
	<b>TOTAL</b>	<b>5</b>	

**Question 5**

(a)	$\frac{33}{44}$ = $\frac{3}{4}$	M1 A1	
(b)	75%	B1	ft but no ft from $\frac{1}{2}$ $\frac{1}{3} = 33.3\dots$ for B1
	<b>TOTAL</b>	<b>3</b>	

**Question 6**

(a)	4	B1	Accept Feb, April, June, August
(b) (i)	December 2002	B1	Accept 11.80 M1 only if one correct or other clearly attempted dep on both correct
(ii)	11.8 inches	B1	
(c)	Rainfall in 2002 now 55.81 inches and in 2003 58.24 inches	M1	
	Yes	A1 dep	
	<b>TOTAL</b>	<b>5</b>	

**Question 7**

	6 parts Number is $\frac{5}{6} \times 30$ = 25	B1 M1 A1	SC2 for 5 and 25
	<b>TOTAL</b>	<b>3</b>	
	<b>TOTAL MARK FOR PAPER</b>	<b>40</b>	