

Exercise Sheet 1 - Lecture 1

1. For the babyboom dataset included in the lecture notes
 - (a) Using Figure 2 in the notes identify the data type of the three variables in the dataset.
 - (b) Plot a histogram of the time of birth of all the babies.
 - (c) Calculate the mean, median, SIQR, MAD and sample standard deviation of the birth weight of all the babies.
 - (d) Construct box plots of time of birth for both boys and girls and compare the two distributions.

2. The following dataset is from a study of the age at which infants learn to crawl, and whether crawling age is related to the temperature during the month in which babies first try to crawl. The measured variables are month of the birth, average age in weeks that this group learned to crawl and average monthly temperature six months after birth month. Plot a scatter plot of Temperature versus Avg. Crawling Age and comment.

Birth Month	Avg. Crawling Age	Temperature
January	29.84	66
February	30.52	73
March	29.70	72
April	31.84	63
May	28.58	52
June	31.44	39
July	33.64	33
August	32.82	30
September	33.83	33
October	33.35	37
November	33.38	48
December	32.32	57

Exam Paper Questions Nearly all exam paper questions ask you to ‘Plot the data and comment’. The table below lists past exam paper *question numbers* that involve *both* plotting the data and calculating summary measures of the data (useful for revision).

Year	Human Sciences	Psychology		
	TT	MT	HT	TT
2001	2	-	4	2
2000	2	2	7	2
1999	2	3	1	2
1998	1	-	1	1
1997	1	-	1	1