

Stats (Credit Past Paper quest 2003 – 2007)

- (J)
2. (a) The pulse rates, in beats per minute, of 6 adults in a hospital waiting area are:

(P2)

68 73 86 72 82 78.

Calculate the mean and standard deviation of this data.

- (b) 6 children in the same waiting area have a mean pulse rate of 89.6 beats per minute and a standard deviation of 5.4.

Make two valid comparisons between the children's pulse rates and those of the adults.

KU
3

RE
2

(K)

3. (a) During his lunch hour, Luke records the number of birds that visit his bird-table.

(P2)

The numbers recorded last week were:

28 32 14 19 18 26 31.

Find the mean and standard deviation for this data.

- (b) Over the same period, Luke's friend, Erin also recorded the number of birds visiting her bird-table.

Erin's recordings have a mean of 25 and a standard deviation of 5.

Make two valid comparisons between the friends' recordings.

KU
4

RE
2

Stats (Credit Past Paper quest 2003 – 2007)

- (F) 3. Bottles of juice should contain 50 millilitres.
(P2) The contents of 7 bottles are checked in a random sample.
The actual volumes in millilitres are as shown below.

52, 50, 51, 49, 52, 53, 50

Calculate the mean and standard deviation of the sample.

KU
4

- (H) 7. The speeds (measured to the nearest 10 kilometres per hour) of 200
(P1) vehicles are recorded as shown.

<i>Speed (km/hr)</i>	30	40	50	60	70	80	90	100	110
<i>Frequency</i>	1	4	9	14	38	47	51	32	4

Construct a cumulative frequency table and hence find the median for this data.

KU
3

(I)

2. The running times in minutes, of 6 television programmes are:

(P2) 77 91 84 71 79 75.

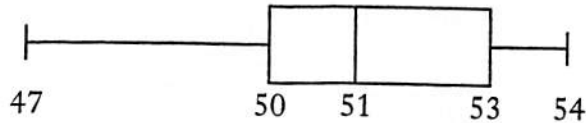
Calculate the mean and standard deviation of these times.

KU
4

Stats (Credit Past Paper quest 2003 – 2007)

9. (B) A random check is carried out on the contents of a number of matchboxes.

(P1) A summary of the results is shown in the boxplot below.



What percentage of matchboxes contains fewer than 50 matches?

RE
1

(C)

2. Fiona checks out the price of a litre of milk in several shops.

(P2) The prices in pence are:

49 44 41 52 47 43.

(a) Find the mean price of a litre of milk.

(b) Find the standard deviation of the prices.

(c) Fiona also checks out the price of a kilogram of sugar in the same shops and finds that the standard deviation of the prices is 2.6.

Make one valid comparison between the two sets of prices.

KU
1
2

RE
1

5. (P1) The average monthly temperature in a holiday resort was recorded in degrees Celsius ($^{\circ}\text{C}$).

Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Average Temperature ($^{\circ}\text{C}$)	1	8	8	10	15	22	23	24	20	14	9	4

Draw a suitable statistical diagram to illustrate the median and the quartiles of this data.

RE
4

Fractions (Credit Past Paper quest 2003 – 2007)

(A) 2. Evaluate
(P1)

$$\frac{2}{7} \left(1\frac{3}{4} + \frac{3}{8} \right)$$

KU	RE
2	

Evaluate

$$\frac{2}{5} \text{ of } 3\frac{1}{2} + \frac{4}{5}$$

KU	
3	

(C) 4. Simplify
(P1)

$$\frac{3}{m} + \frac{4}{(m+1)}$$

KU	
3	

(D) 2. Evaluate
(P1)

$$2\frac{1}{3} + \frac{5}{6} \text{ of } 1\frac{2}{5}$$

KU	
3	

(E) 2. Evaluate
(P1)

$$1\frac{3}{5} + 2\frac{4}{7}$$

KU	
2	

(F) 2. Evaluate
(P1)

$$3\frac{1}{6} \div 1\frac{2}{3}$$

KU	
2	