

Subject n°34

STATISTICS

Please do not write on the subject paper and don't forget to give back the examination paper at the end of the test.

Question 1 :

Over a 3-week period, Molly kept a record of how many minutes her school bus was either early or late :

She used « + » for late, and « - » for early.

+2	-1	0	+5	-4	-7	0
-8	0	+4	-4	-3	+14	+2

- Calculate the mean lateness/earliness of the bus.
- Calculate the median.
- What is the mode ?
- The bus company claim that on an average day they are on time.
What is your opinion in the light of the data?

Question 2 :

Mr Jones posted 88 Christmas cards first class on Monday.

His friends received them over the week : 40 on Tuesday, 28 on Wednesday, 9 on Thursday, 6 on Friday, and the remainder on Saturday.

- Find the modal number of days it took for the cards to arrive.
- Find the median number of days it took for the cards to arrive.
- The post claims that « the majority of first class post arrives within 2 days ».
What is your opinion in the light of the data ?

Question 3 :

The following pie chart shows the results of a survey of forty 11 year olds when asked what their favourite vegetable is with Sunday lunch.

For each of the following sentences, say if it is supported by the data :

- Potatoes are the least popular vegetable.
- $\frac{3}{4}$ of the children like potatoes of some type.
- $\frac{1}{10}$ of the children like carrots or cauliflower.
- $\frac{11}{40}$ of the children asked what their favourite vegetable is, replied « don't eat vegetables »

