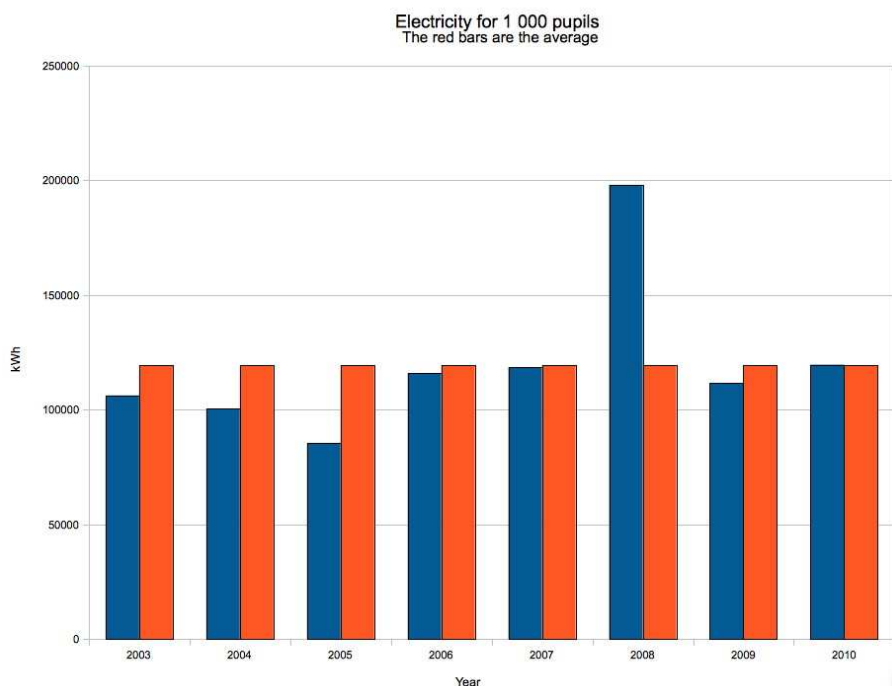


Subject n°30

Please don't write on the exam paper.

The following bar chart shows the annual consumption of electricity (in kWh), in a college of 1000 pupils, between 2003 and 2010 (these data are real). The blue bars are the annual consumptions, and the red bars represent the average consumption, over the eight years.



Year	2003	2004	2005	2006	2007	2008	2009	2010
kWh	106,200	100,473	85,366	115,909	118,577	198,009	111,504	119,612
Average	119,456	119,456	119,456	119,456	119,456	119,456	119,456	119,456

- 1) What information does the average's chart give, compared with that of the yearly consumption ?
- 2) Construct the box-and-whisker plot of these data. (*Reminder : a box-and-whisker plot is a diagram with the median, both quartiles and both extrema*). What can you deduce from this plot?
- 3) Taking the average figure as the yearly consumption (119,456 kWh), how many kWh does it make, per person and per day ? Does it seem a lot ? (*Reminder : 1 kWh = 1 000 Wh is the quantity of electricity used by an normal 100 W light bulb for 10 hours*).