Case study (1):

Data are from 121 subjects (first five rows shown here). Data are measured from children in two consecutive years, and the children were living close to a lead smelter. **LEAD** is blood lead level group [1 = *low lead level* (blood lead levels < 40 micrograms/100 mL in both years), 2 = *medium lead level* (blood lead levels ≥ 40 micrograms/100 mL in exactly one of two years), 3 = *high lead level* (blood lead level ≥ 40 micrograms/100 mL in both years)]. **AGE** is age in years, **SEX** is sex of subject (1 = male; 2 = female). **YEAR1** is blood lead level in first year, and **YEAR2** is blood lead level in second year. **IQ VERB** is measured verbal IQ score. **IQ PERF** is measured performance IQ score. **IQ FULL** is measured full IQ score.

Data are from "Neuropsychological Dysfunction in Children with Chronic Low-Level Lead Absorption," by P. J. Landrigan, R. H. Whitworth, R. W. Baloh, N. W. Staehling, W. F Barthel, and B. F. Rosenblum, *Lancet*, Vol. 1, No. 7909.

TI-83/84 list names (IQLEAD): LEAD, IQAGE, IQSEX, YEAR1, YEAR2, IQV, IQP, IQF

1- Sumarise the data in a table using the best representive frequancy and measurements, then write a descriptoin of the data.
2- Compare three lead levels using IQF by graphs and what are the findings?
3- Compare the three lead levels using IQF by a suitable measrument and what is your remarks in the results?
4- Choose the right graph to represent Sex, Age, and Lead, what is your note these graphs?
5- Comapare IQF for Sex using both chart and measuments, is there IQ difference between male and female? Explain.