

Bus 273: Statistical Analysis for Business

Fall 2011

PROBLEM SHEET # 2

Problem 1: A researcher wants to carry out an inquiry about the motivation and expectations of tourists visiting Istanbul. A questionnaire is to be developed, which will finally be used in face-to-face interviews with tourists.

- a) A first draft of the questionnaire has as first question:

“Do you like spending your holiday in a country with an Islam-based culture?”

Do you think this is a good idea for a first question in the questionnaire? Do you have a better idea? Discuss briefly.

- b) Should the question

“Why did you choose Turkey for your holiday?”

be included in the questionnaire? Is there a better way to investigate why tourists choose Turkey? Develop some ideas as to how a professional questionnaire should be structured in this case.

Problem 2: Consider the variable $X =$ age (completed years) of insurants of a car insurance company. A sample of size $n = 20$ is:

25, 27, 30, 37, 38, 40, 41, 42, 43, 44, 46, 47, 49, 50, 53, 57, 62, 65, 65, 66

- a) Draw a stem-and-leaf display of these data.
b) Determine the median.
c) Will this median equal the median of *all* insurants? (Give reasons for your answer.)
d) What is the scaling of the variable X ?

Problem 3: Five years ago, the price of an asset was €110. The average annual gain until now was 2.74%. Compute today's value of the asset.