University of Applied Sciences Cologne
Faculty of Economics, Business Administration and Law
Prof. Dr. Arrenberg
Room 221, Tel. 39 14
jutta.arrenberg@fh-koeln.de

Exercises Quantitative Methods

Worksheet: Diagrams

Exercise 8.1 (Berenson et al., page 82)
Construct a scatter diagram for the relationship between the costs of a fast-food hamburger meal and the costs in US$ of two movie tickets in various cities in the year 2005:

City	Hamburger	Movie Tickets
Tokyo	5.99	32.66
London	7.62	28.41
New York	5.75	20.00
Sydney	4.45	20.71
Chicago	4.99	18.00
San Francisco	5.29	19.50
Boston	4.39	18.00
Atlanta	3.70	16.00
Toronto	4.62	18.05
Rio de Janeiro	2.99	9.90

For each city plot the costs of a fast-food hamburger meal on the X-axis and the costs of two movie tickets on the Y-axis.

Exercise 8.2 (Anderson et al., page 88)
A survey of stock markets around the world is conducted to assess their performance during 1997. The findings for a sample of 30 countries are shown below:

Country	Per cent change	Country	Per cent change
Argentina	24.07	India	18.60
Australia	7.91	Israel	27.91
Bahrain	49.67	Japan	−21.19
Barbados	48.29	Lithuania	16.82
Bermuda	51.92	Mexico	54.92
Brazil	44.84	Namibia	6.52
Chile	12.80	Nigeria	−7.97
Colombia	69.60	Panama	59.40
Croatia	−1.07	Poland	2.27
Czech Republic	−3.25	Russia	125.89
Ecuador	5.37	Slovenia	18.71
Estonia	62.34	Sri Lanka	15.49
Finland	32.31	Taiwan	18.08
Germany	47.11	Turkey	254.45
Greece	59.19	United States	22.64

Please construct a boxplot and comment the shape.