3. For each of the sets of variables in Previous exercise 2:

(a) Classify each variable as either quantitative or qualitative

(Explain)

(a) Number of cylinders and gasoline consumption of cars

(b) SAT scores, grade point average, and college admission

(c) Supply and demand of certain goods

(d) Company's assets, return on a stock, and net sales

(e) The distance of a race, the time to tun the race, and the weather conditions at the time of running

(f) The weights of a person, whether or not the person is a smoker, and whether or nor the person has a lung cancer

(g) The height and weight of a child, his/her parents' height and weight, and the gender and age of the child

3. For each of the sets of variables in Previous exercise 2:

(b) Which type of regression (see Table 1.5) can be used in the analysis of the data?

(Explain)

(a) Number of cylinders and gasoline consumption of cars Simple

(b) SAT scores, grade point average, and college admission Logistic regression

(c) Supply and demand of certain goods Simple

(d) Company's assets, return on a stock, and net sales multiple

(e) The distance of a race, the time to tun the race, and the weather conditions at the time of running Analysis of covariance

(f) The weights of a person, whether or not the person is a smoker, and whether or nor the person has a lung cancer Logistic regression

(g) The height and weight of a child, his/her parents' height and weight, and the gender and age of the child Analysis of covariance

Univariate – 단변량, 종속변수가 1개

Multivariate – 다변량, 종속변수가 여러개

Simple – 독립변수 1개

multiple – 독립변수 2개 이상