31.4.6 Population co variance Cov[x,y] and correlation Corr[x,y]

So far we have assumed that each of our N independent samples consists of a single number x_i, y_i , which we may consider as begin drawn randomly from a two-dimensional population P(x,y). In particular, we now consider estimators for the population covarinace Cov[x,y] and for the correlation Corr[x,y].