Handout for Homework 1, POLS 6481, Spring 2021

Fill in the table below with data on Unemployment rate (x) and Suicides per million people (y)

i	x_i	$x_i - \bar{x}$	$(x_i - \bar{x})^2$	y_i	$y_i - \bar{y}$	$(y_i - \bar{y})^2$	$(x_i - \bar{x})(y_i - \bar{y})$
'68	3.6			107			
'69	3.5			110			
'70	4.9			115			
'71	5.9			117			
'72	5.6			120			
'73	4.9			120			
'74	5.6			121			
'75	8.5			127			
'76	7.7			125			
'77	7.0			133			
'78	6.0			125			
Σ			$= SS_x$			$= SS_y$	
Σ/n	$= \bar{x}$			$= \bar{y}$			
Σ/(n-1)			$= var(x)$			$= var(y)$	$= cov(x,y)$

SS_x and SS_y are the "sums of squares" of x and y, respectively
var(x) and var(y) are the *sample* variances of x and y, respectively
cov(x,y) is the *sample* covariance between x and y