

# EPPS 6313 : Recitation Session #8

Nov. 14. 2012

## Questions?

- You learned :
- Covariance
- Correlation
- Partial Correlation
- Anything else?

## Problem 1

Independent variable(X) is the number of cigarette the patients smoke a day, and dependent variable(Y) is Lung capacity.  
Calculate covariance.

Cigarettes(x)	Lung Capacity(Y)
0	45
5	42
10	33
15	31
20	29

## Problem 2

From the table in the Problem 1, calculate the bivariate correlation between two variables. And construct correct the null hypothesis, and test it.

## Problem 3

We have another variable( $Z$ ) which is age.

Suppose the correlation between  $X$  and  $Z$  is 0.3, and the correlation between  $Z$  and  $Y$  is -0.3

Compute  $r_{xy.z}$