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**********Course: Econometrics 512**********

clear all


set more off
**** We define the number of observation  for the uniform
distribution******
set obs 1000

gen a = _n

*** We define the disribution in the next line of code******

gen t = runiform()

**** Generate Y varibale assuming mean = 0 and variance = 1*****

gen y = 10 + rnormal()

**** Generate t1 varibale assuming mean = 0 and variance = 1*****

gen t1 = t + rnormal()

**** Generate t2 varibale assuming mean = 0 and variance = 1*****

gen t2 =  t + rnormal()

***** Q1= We run Y on t *********

 reg y t

***** We define the next line of code how to derive beta1********

mat beta1 = e(b)

svmat beta1, names(matcol)

scalar beta_endog1 = beta1t * (1/(1+1))

***** Q2 = We run Y on t1 *********

 reg y t1

***** We define the next line of code on how to derive beta1********

mat beta2 = e(b)
```

```
48
49  svmat beta2, names(matcol)
50
51  scalar beta_endog2 = beta2t1
52
53  ****Q3 = We run Y on t2 replacing t1 as an IV to estimate beta
    close beta1****
54
55  reg y t2
56
57  scalar list
58
59
```