EPPS 6313 : Recitation Session #10

Problem 1

```
reg  lexp gnppc popgrowth
```

```
      Source |       SS       df       MS              Number of obs =       63
-------------+------------------------------           F(  ,     ) =  ( ?   )
       Model |  777.530873 ( ? )  388.765436           Prob > F      =  Test ?
    Residual |  644.405635 ( ? )  10.7400939           R-squared     = ( ?   )
-------------+------------------------------           Adj R-squared =  0.5317
       Total | ( ?      )    62  22.9344598            Root MSE      =  3.2772


------------------------------------------------------------------------------
        lexp |     Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       gnppc |    .000293   .0000419     6.99   0.000     .0002092    .0003769
   popgrowth |  -.9833919    .485387   ( ? )   Test ?    -1.95431   -.0124734
       _cons |   70.67366   .8071596    87.56   0.000     69.0591    72.28822
------------------------------------------------------------------------------
```

(1) Report the regression model with estimated coefficients from above STATA result

(2) Fill the blanks

(3) Do t-test for popgrowth and F-test with correct null hypotheses

EPPS 6316 : Recitation Session #10

Problem 1

Choose all correct statements for Autocorrelation in the below list.

1. If you find it, you can change the specification of the model to fix it.

2. If Durbin-Watson d is close to 2, you need to worry about autocorrelation

3. In AR(1), if $|\rho| < 1$, it is called stationary.

4. Autocorrelation means the effect of random shocks persists more than one time period.

Problem 2

```
ccorrgram Y
```

					-1 0 1	-1 0 1
LAG	AC	PAC	Q	Prob>Q	[Autocorrelation]	[Partial Autocor]
1	0.9480	0.9589	132.14	0.0000	|-------	|-------
2	0.8756	-0.3298	245.65	0.0000	|-------	--|
3	0.8067	0.2018	342.67	0.0000	|------	|-
4	0.7526	0.1450	427.74	0.0000	|------	|-
5	0.7138	0.2585	504.8	0.0000	|-----	|--
6	0.6817	-0.0269	575.6	0.0000	|-----	|
7	0.6629	0.2043	643.04	0.0000	|-----	|-
8	0.6556	0.1561	709.48	0.0000	|-----	|-

(1) From above STATA result, Can we say this is the first-order autocorrelation and Why ?

(2) From above STATA result, Can we say that Durbin-Watson d will be much less than 2 and Why ?