```
                                                      ___  ____  ____  ____  ____(R)
                                                     /__    /    ____/   /    ____/
                                                    ___/   /   /___/   /   /___/
                                                      Statistics/Data Analysis

                                                        User: Parmveer N
                                                     Project: Assignment 3
```

```
  ___  ____  ____  ____  ____ (R)
 /__    /    ____/   /    ____/
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Notes:
      1.  (/v# option or -set maxvar-) 5000 maximum variables
```

```
1 . use "\\Client\C$\Users\parmy\Documents\Parmveer's Folder\Econ 3210\assignment 3\WAGE
  > 2.DTA", clear

2 . gen x = ln(wage)

3 . regress x educ IQ
```

Source	SS	df	MS		
Model	21.4779447	2	10.7389723	Number of obs =	935
Residual	144.178339	932	.154697788	F(2, 932) =	69.42
Total	165.656283	934	.177362188	Prob > F =	0.0000
				R-squared =	0.1297
				Adj R-squared =	0.1278
				Root MSE =	.39332

x	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
educ	.0391199	.0068382	5.72	0.000	.0256998	.05254
IQ	.0058631	.0009979	5.88	0.000	.0039047	.0078215
_cons	5.658288	.0962408	58.79	0.000	5.469414	5.847162

```
4 . regress educ IQ
```

Source	SS	df	MS		
Model	1198.55887	1	1198.55887	Number of obs =	935
Residual	3308.26038	933	3.54583106	F(1, 933) =	338.02
Total	4506.81925	934	4.82528828	Prob > F =	0.0000
				R-squared =	0.2659
				Adj R-squared =	0.2652
				Root MSE =	1.883

educ	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
IQ	.0752564	.0040933	18.39	0.000	.0672233	.0832896
_cons	5.8463	.4191273	13.95	0.000	5.023758	6.668841

```
 5 . predict resid, residual

 6 . di resid
-.8451488

 7 . regress x resid
```

Source	SS	df	MS		
Model	5.06285075	1	5.06285075	Number of obs	= 935
Residual	160.593432	933	.172125865	F(1, 933)	= 29.41
				Prob > F	= 0.0000
Total	165.656283	934	.177362188	R-squared	= 0.0306
				Adj R-squared	= 0.0295
				Root MSE	= .41488

x	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
resid	.0391199	.0072131	5.42	0.000	.0249641	.0532757
_cons	6.779004	.013568	499.63	0.000	6.752376	6.805631

```
 8 . regress x IQ
```

Source	SS	df	MS		
Model	16.4150939	1	16.4150939	Number of obs	= 935
Residual	149.241189	933	.159958402	F(1, 933)	= 102.62
				Prob > F	= 0.0000
Total	165.656283	934	.177362188	R-squared	= 0.0991
				Adj R-squared	= 0.0981
				Root MSE	= .39995

x	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
IQ	.0088072	.0008694	10.13	0.000	.007101	.0105134
_cons	5.886994	.0890206	66.13	0.000	5.712291	6.061698

```
 9 . predict resid1, residual

10 . di resid1
-.06096878

11 . regress resid1 resid
```

Source	SS	df	MS		
Model	5.0628507	1	5.0628507	Number of obs	= 935
Residual	144.178338	933	.154531981	F(1, 933)	= 32.76
				Prob > F	= 0.0000
Total	149.241189	934	.15978714	R-squared	= 0.0339
				Adj R-squared	= 0.0329
				Root MSE	= .39311

resid1	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
resid	.0391199	.0068345	5.72	0.000	.025707	.0525328
_cons	3.16e-10	.0128559	0.00	1.000	-.0252299	.0252299

```
12 .
```