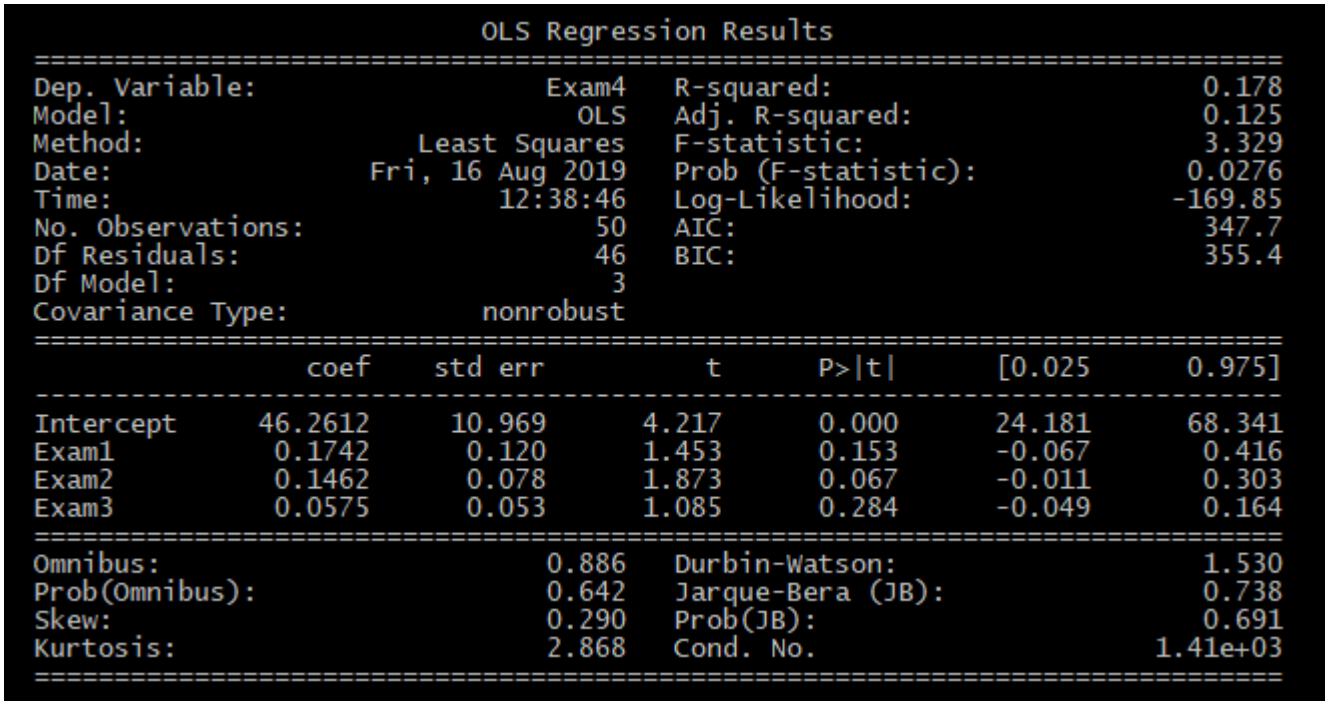
Question 5

3 / 3 points

The ols() method in statsmodels module is used to fit a multiple regression model using “Exam4” as the response variable and “Exam1”, “Exam2”, and “Exam3” as predictor variables. The output is shown below. A text version is available. What is the correct regression equation based on this output and what is the coefficient of determination? Select one.



OLS Regression Results

Dep. Variable:	Exam4	R-squared:	0.178
Model:	OLS	Adj. R-squared:	0.125
Method:	Least Squares	F-statistic:	3.329
Date:	Fri, 16 Aug 2019	Prob (F-statistic):	0.0276
Time:	12:38:46	Log-Likelihood:	-169.85
No. Observations:	50	AIC:	347.7
Df Residuals:	46	BIC:	355.4
Df Model:	3		
Covariance Type:	nonrobust		

	coef	std err	t	P>|t|	[0.025	0.975]
Intercept	46.2612	10.969	4.217	0.000	24.181	68.341
Exam1	0.1742	0.120	1.453	0.153	-0.067	0.416
Exam2	0.1462	0.078	1.873	0.067	-0.011	0.303
Exam3	0.0575	0.053	1.085	0.284	-0.049	0.164

Omnibus:	0.886	Durbin-Watson:	1.530
Prob(Omnibus):	0.642	Jarque-Bera (JB):	0.738
Skew:	0.290	Prob(JB):	0.691
Kurtosis:	2.868	Cond. No.	1.41e+03

- Exam4 = 10.969 + 0.120 Exam1 + 0.078 Exam2 + 0.053 Exam3
  coefficient of determination = 0.178
- Exam4 = 46.2612 + 0.1742 Exam1 + 0.1462 Exam2 + 0.0575 Exam3
  coefficient of determination = 0.178
- Exam4 = 46.2612 + 0.1742 Exam1 + 0.1462 Exam2 + 0.0575 Exam3
  coefficient of determination = 3.329
- Exam4 = 10.969 + 0.120 Exam1 + 0.078 Exam2 + 0.053 Exam3
  coefficient of determination = 3.329