

MCQ

21) When implementing linear regression of some dependent variable y on the set of independent variables $x=(x_1, \dots, x_r)$ where r is the number of predictors, which of the following is true?

Answer d) Both a and b

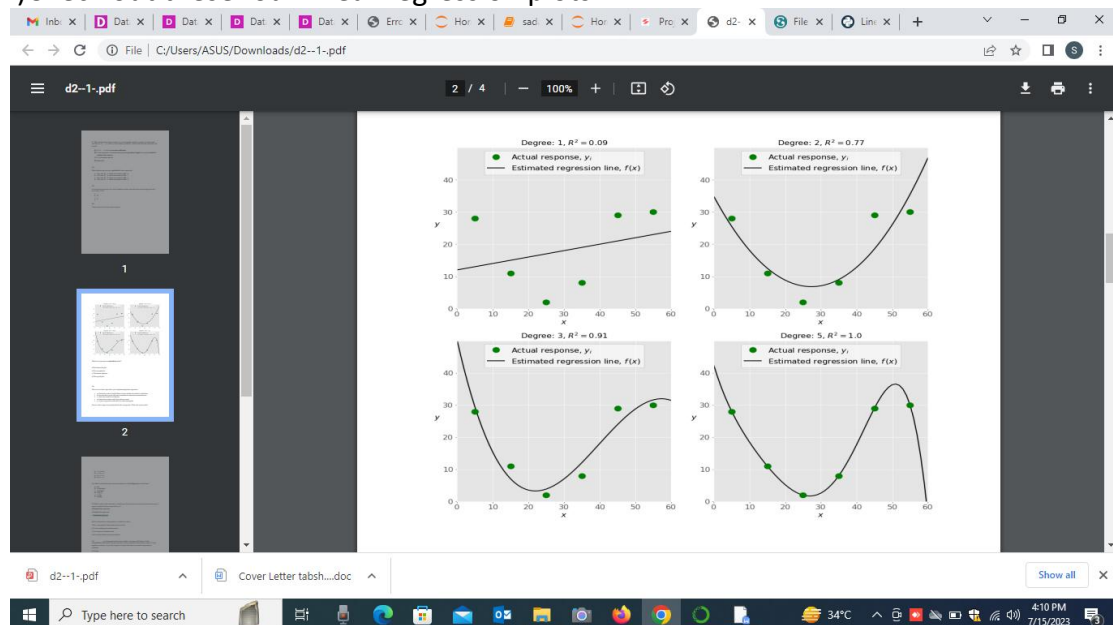
22) What indicates that you have a perfect fit in linear regression?

Answer b) The value $R^2=1$, which corresponds to $SSR=0$

23) In simple linear regression, the value of what shows the point where the estimated regression line crosses the y axis?

Answer b) B_0

24) Check out these four linear regression plots:



Which one represents an underfitted model?

Answer d) The top-left plot

25) There are five basic steps when you're implementing linear regression:

- a. Check the results of model fitting to know whether the model is satisfactory.
- b. Provide data to work with, and eventually do appropriate transformations.
- c. Apply the model for predictions.
- d. Import the packages and classes that you need.
- e. Create a regression model and fit it with existing data. However, those steps are currently listed in the wrong order. What's the correct order?

Answer d) d, b, e, a, c

26) Which of the following are optional parameters to LinearRegression in scikit-learn?

Answer b) `fit_intercept` c) `normalize` d) `copy_X` e) `n_jobs`

27) While working with scikit-learn, in which type of regression do you need to transform the array of inputs to include nonlinear terms such as

Answer c) Polynomial regression

28)You should choose statsmodels over scikit-learn when:

Answer c) You need more detailed results

29)_____ is a fundamental package for scientific computing with Python. It offers comprehensive mathematical functions, random number generators, linear algebra routines, Fourier transforms, and more. It provides a high-level syntax that makes it accessible and productive.

Answer b) Numpy

30) _____ is a Python data visualization library based on Matplotlib. It provides a high-level interface for drawing attractive and informative statistical graphics that allow you to explore and understand your data. It integrates closely with pandas data structures.

Answer b) Seaborn