FILE 2

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

a) $\beta_0, \beta_1, …, \beta_r$ **are the regression coefficients.**

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

24)Check out these four linear regression plots:
Which one represents an **underfitted** model?
   a)   **The bottom-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?
c) d, e, c, b, a

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

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 x^2?
c) Polynomial regression

28) You should choose statsmodels over scikit-learn when:
d) You need to include optional parameters.

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.
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.
b) Seaborn