

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

A. $\beta_0, \beta_1, \dots, \beta_r$ 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. Which one represents an **underfitted** model?

A. The bottom-right plot

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

A. d, b, e, a, c

26. Which of the following are optional parameters to Linear Regression in scikit-learn?

A. `fit_intercept`

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 ?

A. Polynomial regression

28. You should choose stats models over scikit-learn when:

A. You want graphical representations of your data.

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.

A. 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.

A. Seaborn