Regression

9/9 questions correct

Quiz passed!

Continue Course (/learn/ml-foundations/supplement/0Bs94/download-the-ipython-notebook-used-in-this-lesson-to-follow-along)

Back to Week 2 (/learn/ml-foundations/home/week/2)

1.

Which figure represents an overfitted model?

2.

True or false: **The model that best minimizes training error is the one that will perform best for the task of prediction on new data.**

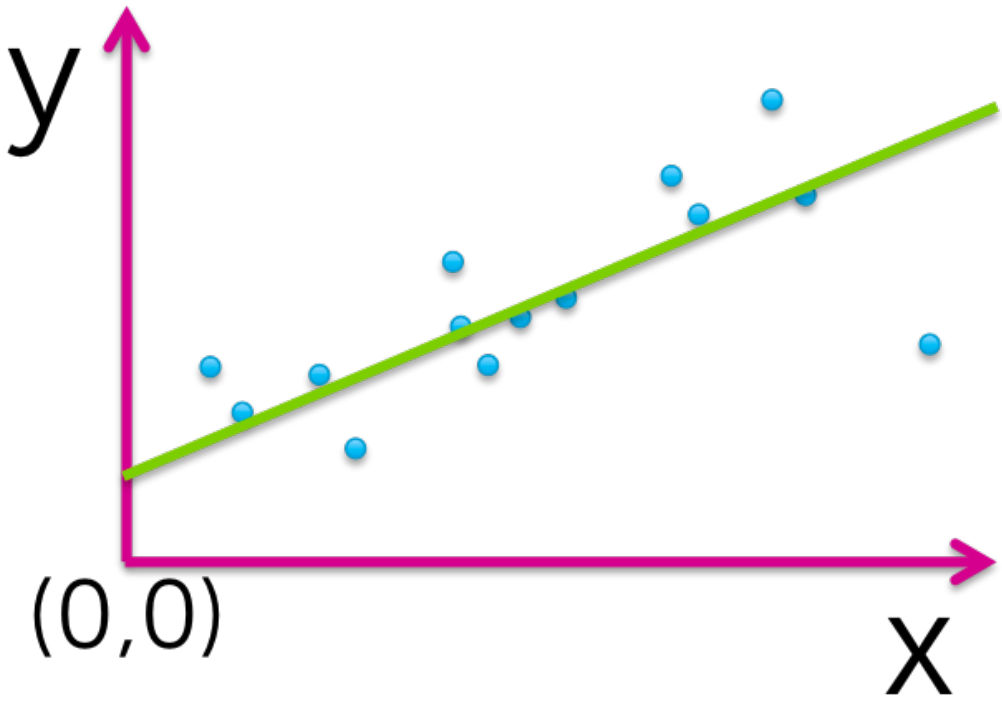
3.

The following table illustrates the results of evaluating 4 models with different parameter choices on some data set. Which of the following models fits this data the best?

Model index	Parameters (intercept, slope)	Residual sum of squares (RSS)
1	(0,1.4)	20.51
2	(3.1,1.4)	15.23
3	(2.7, 1.9)	13.67
4	(0, 2.3)	18.99

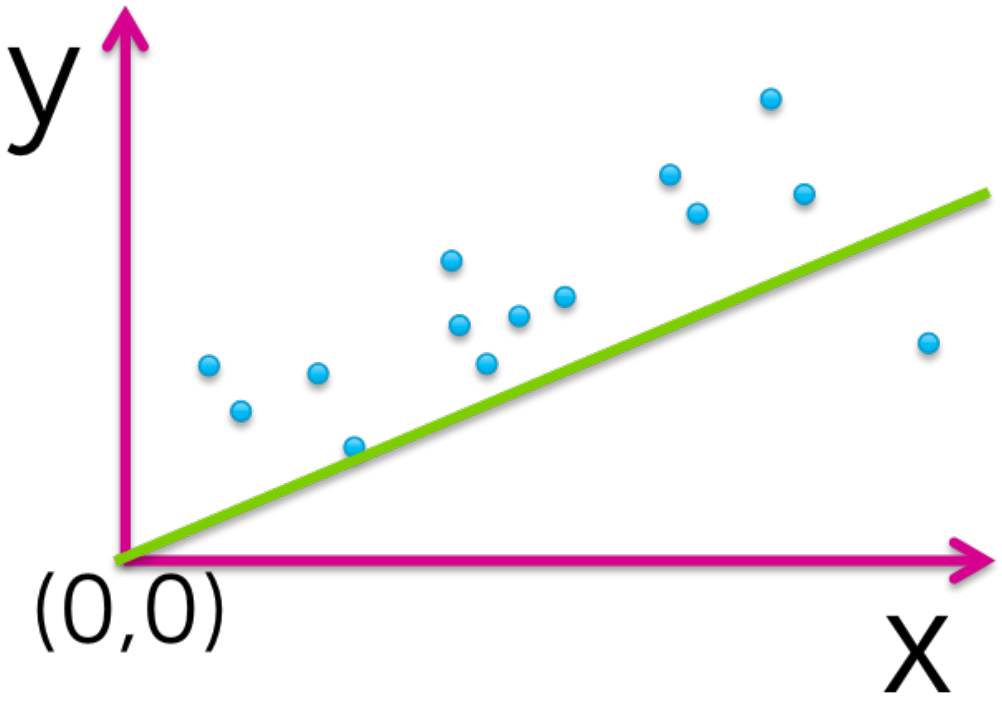
4.

Assume we fit the following quadratic function: f(x) = w0+w1*x+w2*(x^2) to the dataset shown (blue circles). The fitted function is shown by the green curve in the picture below. Out of the 3 parameters of the fitted function (w0, w1, w2), which ones are estimated to be 0? *(Note: you must select all parameters estimated as 0 to get the question correct.)*



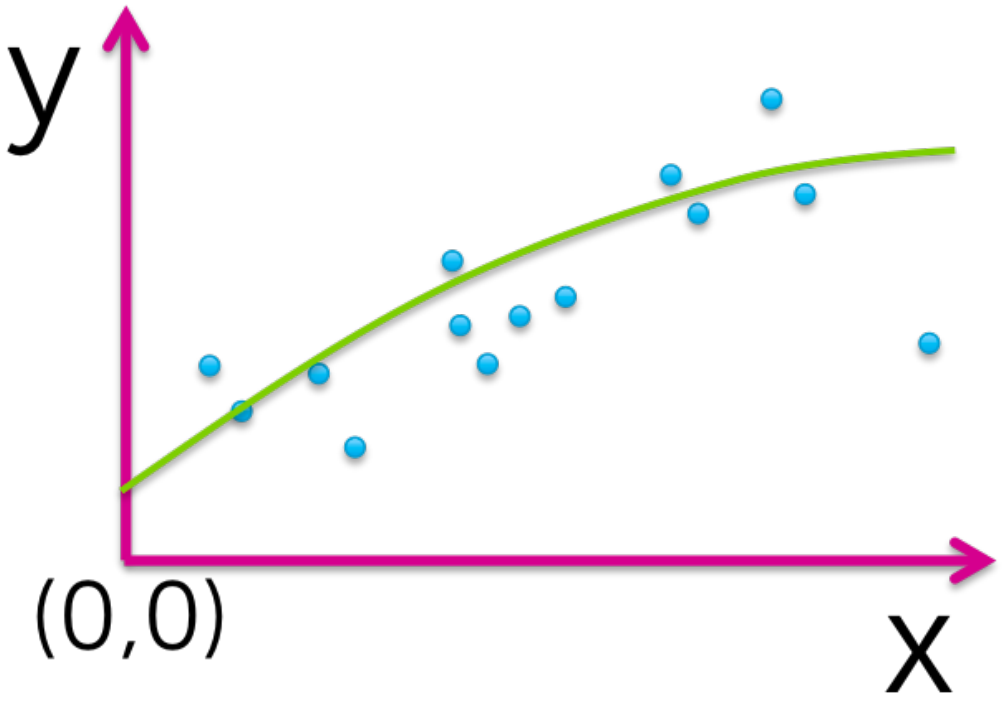
✔ 5.

Assume we fit the following quadratic function: f(x) = w0+w1*x+w2*(x^2) to the dataset shown (blue circles). The fitted function is shown by the green curve in the picture below. Out of the 3 parameters of the fitted function (w0, w1, w2), which ones are estimated to be 0? *(Note: you must select all parameters estimated as 0 to get the question correct.)*



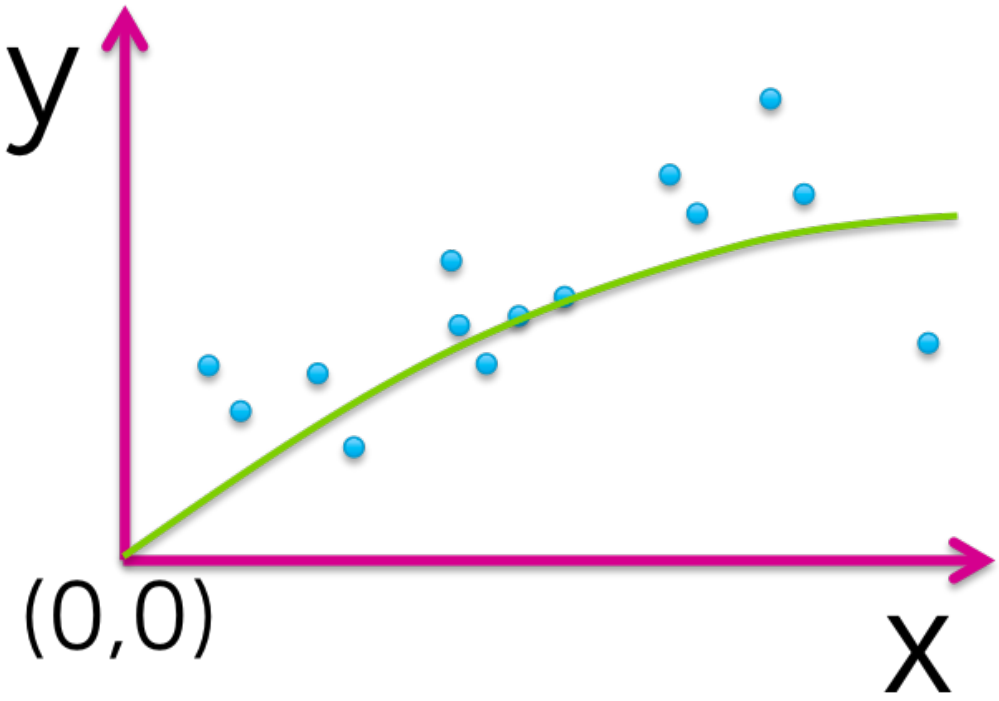
✔ 6.

Assume we fit the following quadratic function: f(x) = w0+w1*x+w2*(x^2) to the dataset shown (blue circles). The fitted function is shown by the green curve in the picture below. Out of the 3 parameters of the fitted function (w0, w1, w2), which ones are estimated to be 0? *(Note: you must select all parameters estimated as 0 to get the question correct.)*



✔ 7.

Assume we fit the following quadratic function: f(x) = w0+w1*x+w2*(x^2) to the dataset shown (blue circles). The fitted function is shown by the green curve in the picture below. Out of the 3 parameters of the fitted function (w0, w1, w2), which ones are estimated to be 0? *(Note: you must select all parameters estimated as 0 to get the question correct.)*



✔ 8.

Which of the following plots would you ***not*** expect to see as a plot of training and test error curves?

✔ 9.

True or false: One always prefers to use a model with more features since it better captures the true underlying process.
