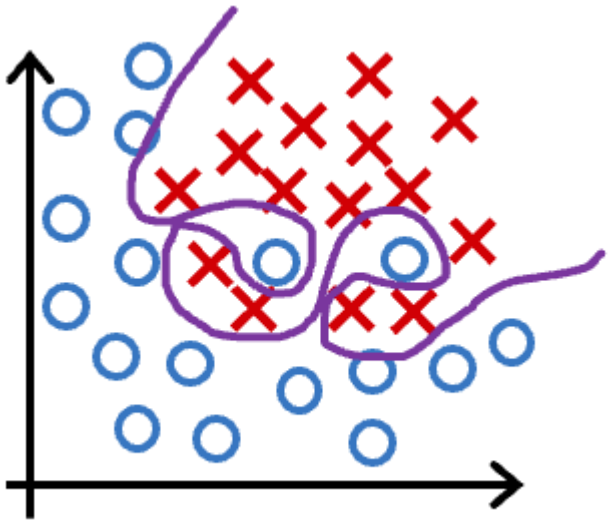
Practice quiz: The problem of overfitting

Puntos totales 3

1. Which of the following can address overfitting? **1 punto**

- [x] Apply regularization
- [x] Collect more training data
- [x] Select a subset of the more relevant features.
- [ ] Remove a random set of training examples

2. You fit logistic regression with polynomial features to a dataset, and your model looks like this. **1 punto**

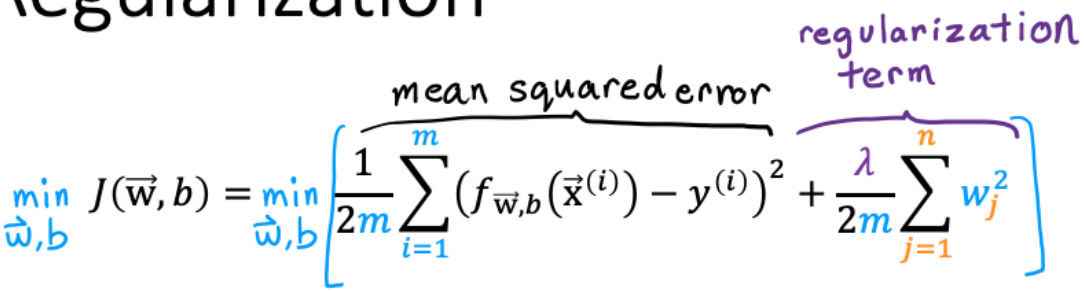


What would you conclude? (Pick one)

- ( ) The model has high variance (overfit). Thus, adding data is likely to help
- ( ) The model has high variance (overfit). Thus, adding data is, by itself, unlikely to help much.
- ( ) The model has high bias (underfit). Thus, adding data is likely to help
- ( ) The model has high bias (underfit). Thus, adding data is, by itself, unlikely to help much.

3. 1 punto

Regularization



Suppose you have a regularized linear regression model. If you increase the regularization parameter λ, what do you expect to happen to the parameters $w_1, w_2, ..., w_n$?

- (●) This will reduce the size of the parameters $w_1, w_2, ..., w_n$
- ( ) This will increase the size of the parameters $w_1, w_2, ..., w_n$