hw\_06

1. **What characteristics do Cosine Embedded Loss and Margin Ranking Loss have the same? (a,b)**
2. calculate cosine similarity between two vectors
3. minimizes the distance between two vectors
4. determine whether the properties between the two vectors are identical
5. measures the relationship between two vectors
6. **What steps can we take to prevent overfitting in a Neural Network? (a,c,d,e)**
7. Data augmentation
8. Model augmentation
9. Early Stopping
10. Dropout
11. Regularization
12. **Which of the following is true of Regularization? (b,c)**
13. Ridge Regression is also called L1 Regularization
14. Ridge Regression can reduce the parameters to zero
15. Lasso Regression can reduce the parameters to a large extent but not to zero
16. Lasso Regression can reduce the parameters to zero
17. **Select the correct option about Rigid regularization. (c)**

| 1- Ridge regression technique prevents coefficients from rising too high.  2- As λ→∞, the impact of the penalty grows, and the ridge regression coefficient estimates will approach infinity. |
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1. 1 - true, 2 - true.
2. 1 - false, 2 - false.
3. 1 - true, 2 - false.
4. 1 - false, 2 - true.
5. **For Ridge Regression, if the regularization parameter is very high, which options are true? (a,b)**
6. Large coefficients are significantly penalized
7. It can lead to a model that is too simple and ends up underfitting the data
8. Large coefficients are not penalized
9. It can lead to a model that is too simple and ends up overfitting the data