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# Restricted Boltzmann Machines

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1. What is the main application of RBM?

1 / 1 point

- ☐ Collaborative filtering
- ☐ Feature extraction
- ☐ Data dimensionality reduction
- ☒ All of the above

 Correct

2. How many layers does an RBM (Restricted Boltzmann Machine) have?

1 / 1 point

- ☐ 3
- ☐ 4
- ☒ 2
- ☐ Infinte
- ☐ All of the above

 Correct

3. How does an RBM compare to a PCA?

1 / 1 point

- ☒ Both can regenerate input data
- ☐ PCA cannot generate original data
- ☐ PCA is another type of Neural Network
- ☐ RBM cannot reduce dimensionality
- ☐ All of the above

 Correct

4. Which statement is TRUE about RBM?

1 / 1 point

- ☐ At the hidden layer's nodes, X is multiplied by a W (weight matrix) and added to h\_bias.
- ☐ Each node in the first layer has a bias.
- ☐ The RBM reconstructs data by making several forward and backward passes between the visible and hidden layers.
- ☐ It is a Boltzmann machine, but with no connections between nodes in the same layer.
- ☒ All of the above

 Correct

5. Which statement is TRUE statement about an RBM?

1 / 1 point

- ☐ The Positive phase of an RBM increases the probability of training data.
- ☐ The Negative phase of an RBM decreases the probability of samples generated by the model.
- ☐ Contrastive Divergence (CD) is used to approximate the negative phase of an RBM.
- ☐ The objective function is to maximize the likelihood of our data being drawn from the reconstructed data distribution.
- ☒ All of the above

 Correct