

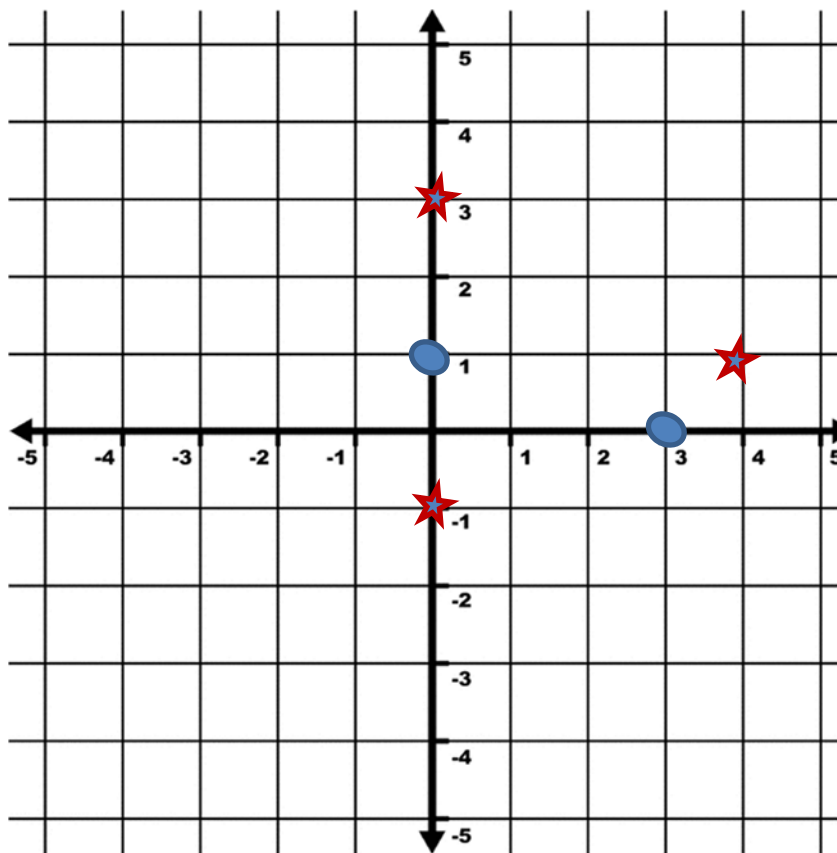
CSE-5368-001 Neural Networks
Fall 2022 Quiz 01

Time: 10 Minutes

NOTES:

- a. Credit is only given to the correct numerical values.
- b. All numerical values must be calculated with three digits of accuracy after the decimal point.

Design a two-layer Perceptron neural network with two nodes in the first layer and one node in the second layer which will correctly classify the two classes (circles and stars) as shown below. Assume the activation (transfer) function for all the nodes are hard-limit with the output of **0 (star)** and **1(Circle)**.



Show the weight matrices and biases for both layers.
Biases should be included in the weight matrices in the first column.