

1. Section 1

Starting Equations:

$$class1 : A = [2, 2]^T, B = [3, 5]^T$$

$$class1_bias : A = [1, 2, 2]^T, B = [1, 3, 5]^T$$

$$class2 : C = [1, 3]^T, D = [-1, -0.5]^T$$

$$class2_bias : C = [1, 1, 3]^T, D = [1, -1, -0.5]^T$$

$$initial_weight_vector : W0 = [1, 1, 1]^T$$

First Step of weight vector updating:

$$W0 * A = 5(OK)$$

$$W0 * B = 9(OK)$$

$$W0 * C = 5(NOTOK)$$

$$W1 = W0 - C = [0, 0, -2]$$

2. Section 2

3. Section 3

4. Section 4

5. Section 5