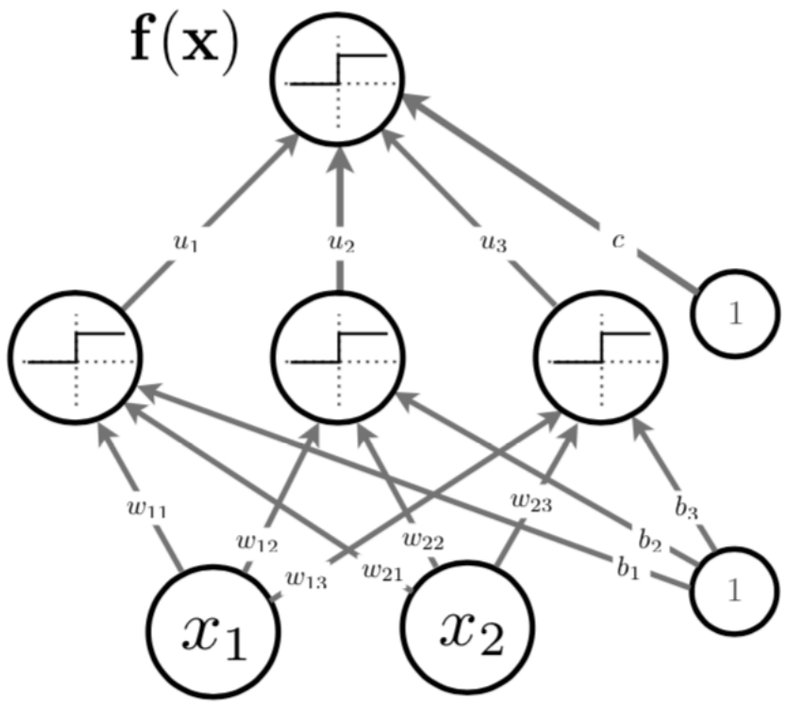
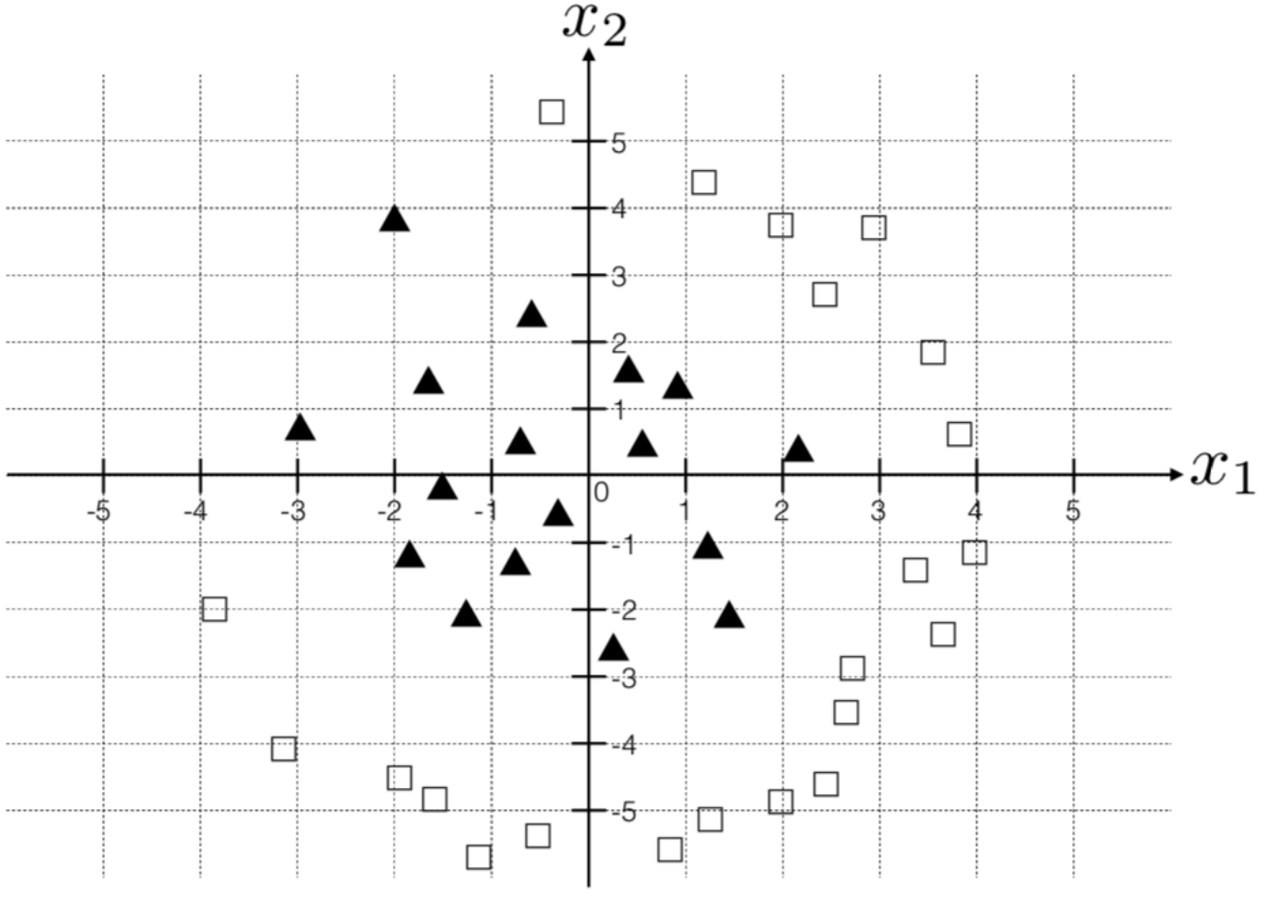
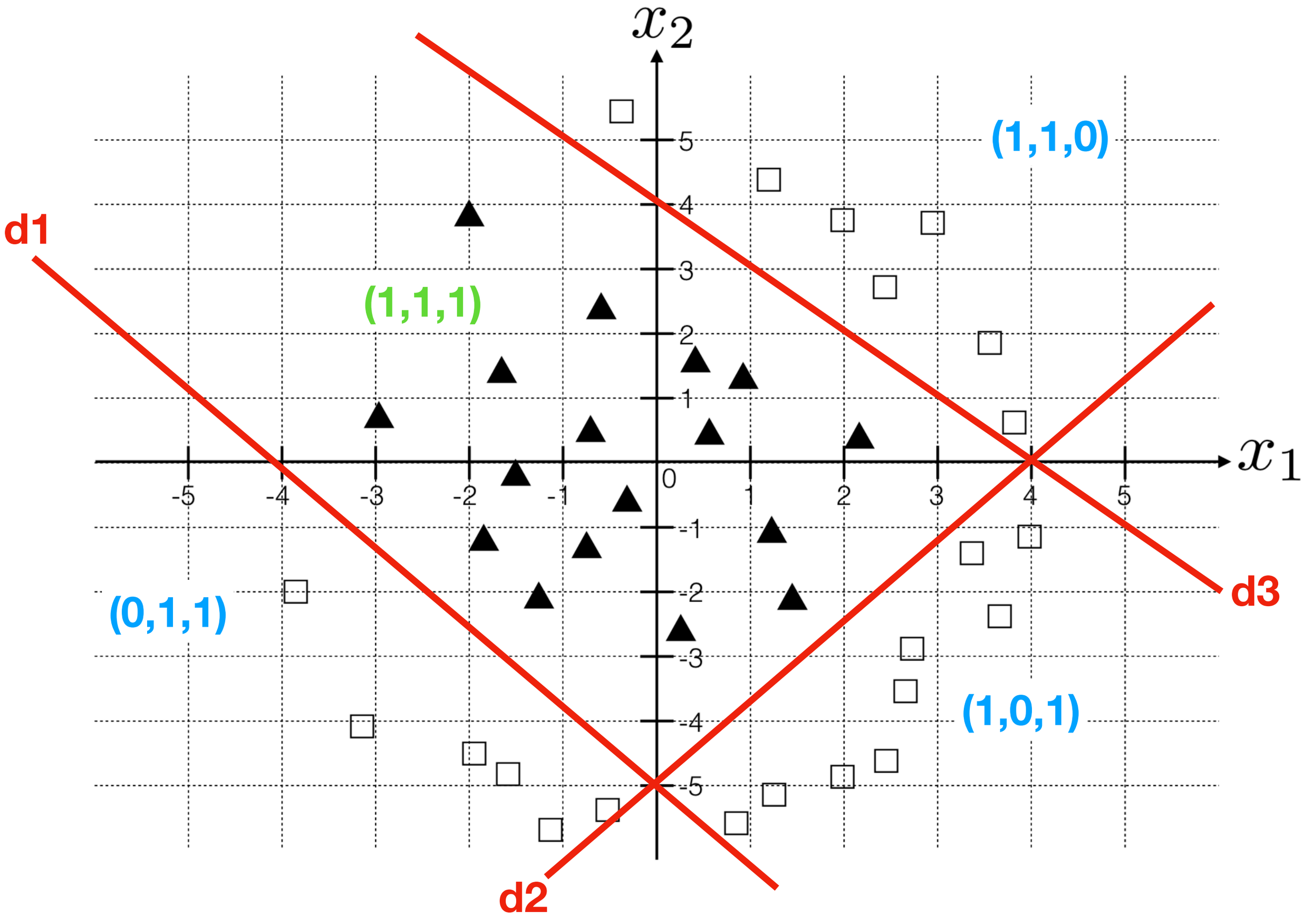
2. **(10 points) Neural Network Representation**
Consider the binary classification problem described in the figure below (right), with the two classes being represented by solid triangles and empty squares. Let us refer to the squares as Class 0 and the triangles as Class 1. In this problem we will consider a classifier using the network in the figure (right). All activation functions in the hidden layer being Heavyside step functions :

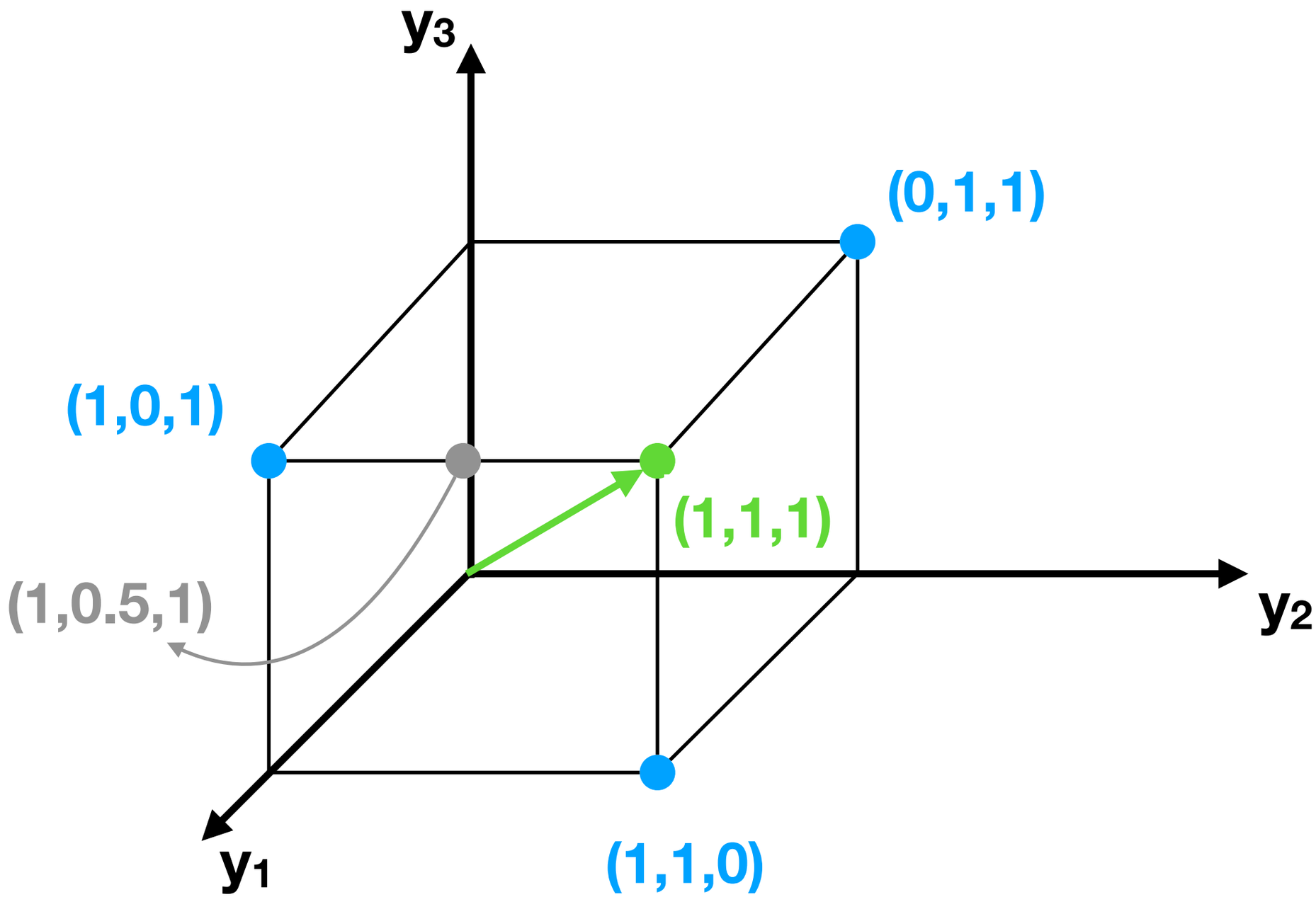
$$H[x] = \begin{cases} 0, & x < 0, \\ 1, & x \geq 0, \end{cases} \tag{1}$$

Fill-in the values of the model parameters (w_{11}, w_{12}, w_{13}, w_{21}, w_{22}, w_{23}, u_1, u_2, u_3, b_1, b_2, b_3 and c) that result in the correct class prediction for the data presented in the figure.






x_2
x_1
d1
d2
d3
(1,1,1)
(1,1,0)
(0,1,1)
(1,0,1)
5
4
3
2
1
0
-1
-2
-3
-4
-5
-5
-4
-3
-2
-1
1
2
3
4
5


y3
(0,1,1)
(1,0,1)
(1,1,1)
(1,0.5,1)
y2
y1
(1,1,0)