

Q1. (40 points) You are given the following dataset.

	I_1	I_2	T
e_1	2	1	0
e_2	-1	3	1
e_3	5	1	0
e_4	1	3	1

Run the perceptron algorithm (p19 of chap3e_ann1x.pdf) by hand, and write the results in the following format.

iteration	W^{old}	I	T	O	T = 0?	W^{new}
0	[0 0 0]	[2 1]	0	0	yes	[0 0 0]
1	[0 0 0]	[-1 3]	0	1	no	[1 -1 3]
2	[1 -1 3]	[5 1]	0	0	yes	[1 -1 3]
3	[1 -1 3]	[1 3]	1	1	yes	[1 -1 3]
4	[1 -1 3]	[2 1]	1	0	no	[0 -3 2]
5	[0 -3 2]	[-1 3]	1	1	yes	[0 -3 2]
6	[0 -3 2]	[5 1]	0	0	yes	[0 -3 2]
7	[0 -3 2]	[1 3]	1	1	yes	[0 -3 2]