## Hebb for AND and OR

## **AND**

```
delte wazn ha [1, 1, 1]
wazn updaate shode ===== [1, 1, 1]
moadele khat:
1 + 1*x1 + 1*y =0

delte wazn ha [-1, 1, -1]
wazn updaate shode ===== [0, 2, 0]
moadele khat:
0 + 0*x1 + 2*y =0

delte wazn ha [1, -1, -1]
wazn updaate shode ===== [1, 1, -1]
moadele khat:
-1 + 1*x1 + 1*y =0
```

```
delte wazn ha [1, 1, -1]
wazn updaate shode ===== [2, 2, -2]
moadele khat:
-2 + 2*x1 + 2*y =0
```

```
-1.00 -0.75 -0.50 -0.25 0.00 0.25 0.50 0.75 1.00
```

```
delte wazn ha [1, 1, 1]
updaated weight ===== [1, 1, 1]
moadele khat:
1 + 1*x1 + 1*y = 0
delte wazn ha [1, -1, 1]
updaated weight ===== [2, 0, 2]
moadele khat:
2 + 2*x1 + 0*v = 0
delte wazn ha [-1, 1, 1]
updaated weight ===== [1, 1, 3]
moadele khat:
3 + 1*x1 + 1*y = 0
                              0.00
                             -0.25
                             -0.50
delte wazn ha [1, 1, -1]
updaated weight ===== [2, -1.00
moadele khat:
                             -1.25
2 + 2*x1 + 2*y = 0
                             -1.50
                             -1.75
                             -2.00
                                 -1.00 -0.75 -0.50 -0.25 0.00 0.25 0.50 0.75 1.00
```

## Train weight

735 bytes

O (1).jpg  JPG File  134 bytes	O (2).jpg  JPG File  134 bytes	O (3).jpg  JPG File  134 bytes	O (4).jpg  JPG File  134 bytes
O (9).jpg  JPG File  134 bytes	O (10).jpg  JPG File  134 bytes	O (11).jpg  JPG File  134 bytes	O (12).jpg  JPG File  134 bytes
O (11).jpg  JPG File  736 bytes	O (12).jpg  JPG File  727 bytes	O (14).jpg  JPG File  738 bytes	X (1).jpg JPG File 134 bytes
X (2).jpg  JPG File  134 bytes	X (3).jpg  JPG File  134 bytes	X (4).jpg  JPG File  134 bytes	X (5).jpg  JPG File  134 bytes
X (6).jpg  JPG File  134 bytes	X (7).jpg JPG File 134 bytes	X (8).jpg  JPG File  134 bytes	X (9).jpg JPG File 134 bytes
X (11).jpg JPG File 738 bytes	X (12).jpg JPG File 702 bytes	X (10) - Copy.jpg  JPG File  735 bytes	X (10).jpg  JPG File  738 bytes
X (11).jpg  JPG File			

## Test final weight

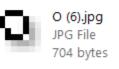
```
O (1).jpg
JPG File
736 bytes
O (5).jpg
JPG File
728 bytes
O (9).jpg
JPG File
738 bytes
X (3).jpg
JPG File
729 bytes
X (7).jpg
JPG File
```

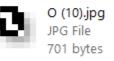
134 bytes

```
O (2).jpg

JPG File

726 bytes
```











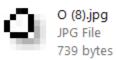


















```
yt2=list_predict(testx,testy,wazn_nahayi)
score(testy,yt2)

(yhads zade shode , y asli)
[(-1, -1.0), (-1, -1.0), (1, -1.0), (1, -1.0), (1, -1.0), (-1, -1.0), (-1, -1.0), (-1, -1.0), (1, -1.0), (1, 1.0), (1, 1.0), (1, 1.0), (1, 1.0), (1, 1.0), (1, 1.0), (1, 1.0), (1, 1.0), (1, 1.0)]
accuracy: 0.75
0.75
```