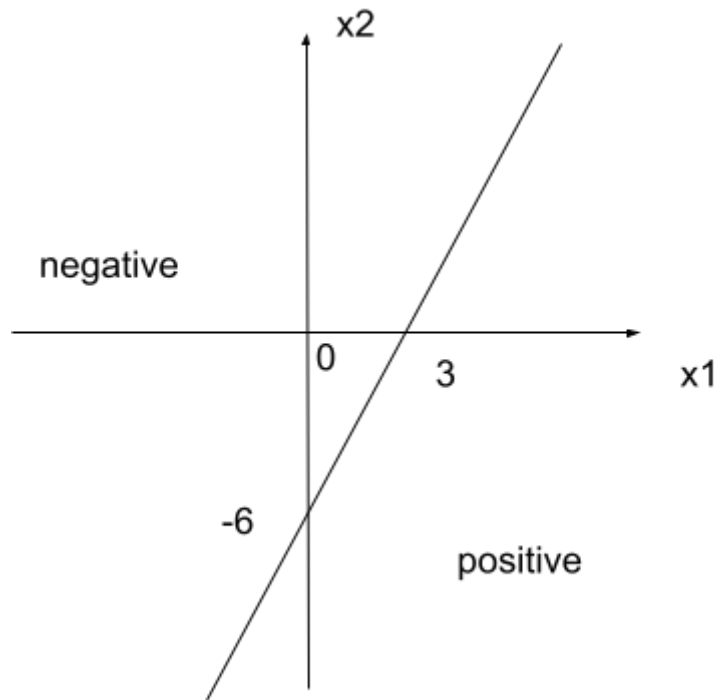


## Worksheet 9

1



2

(a)

*definitely true*

(b)

*definitely true*

(c)

*possible false*

(d)

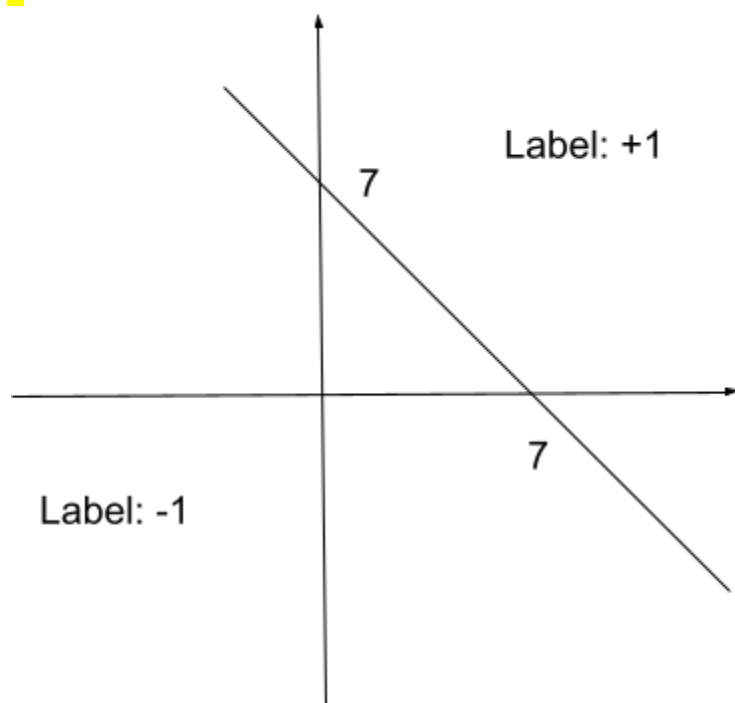
*possible false*

3

$q - p$

4

a



b

$$\gamma = 1/||\omega|| = \sqrt{2}$$

c

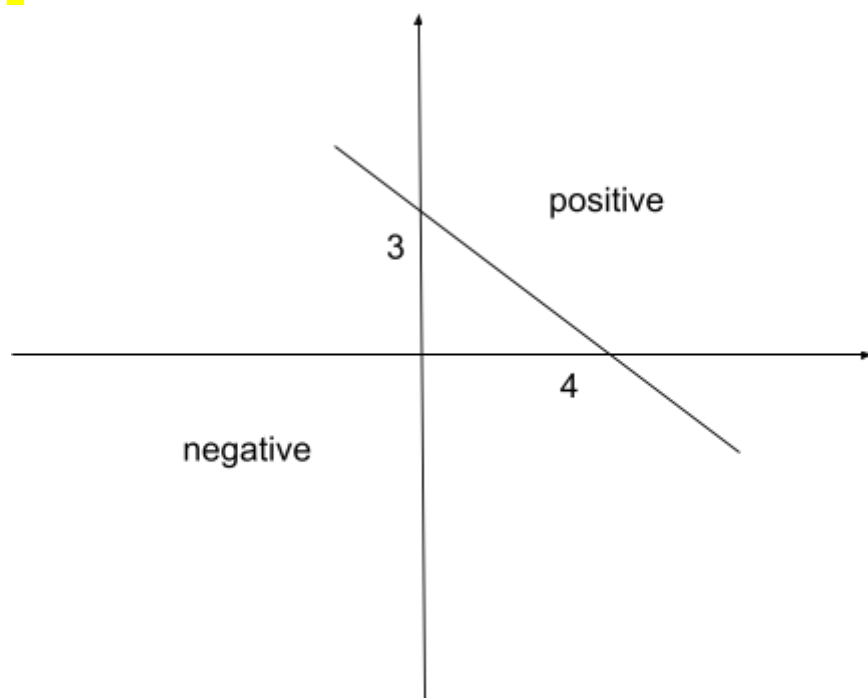
$$w_1 x_1 + w_2 x_2 - 7 = 0$$

$$w_1 = w_2$$

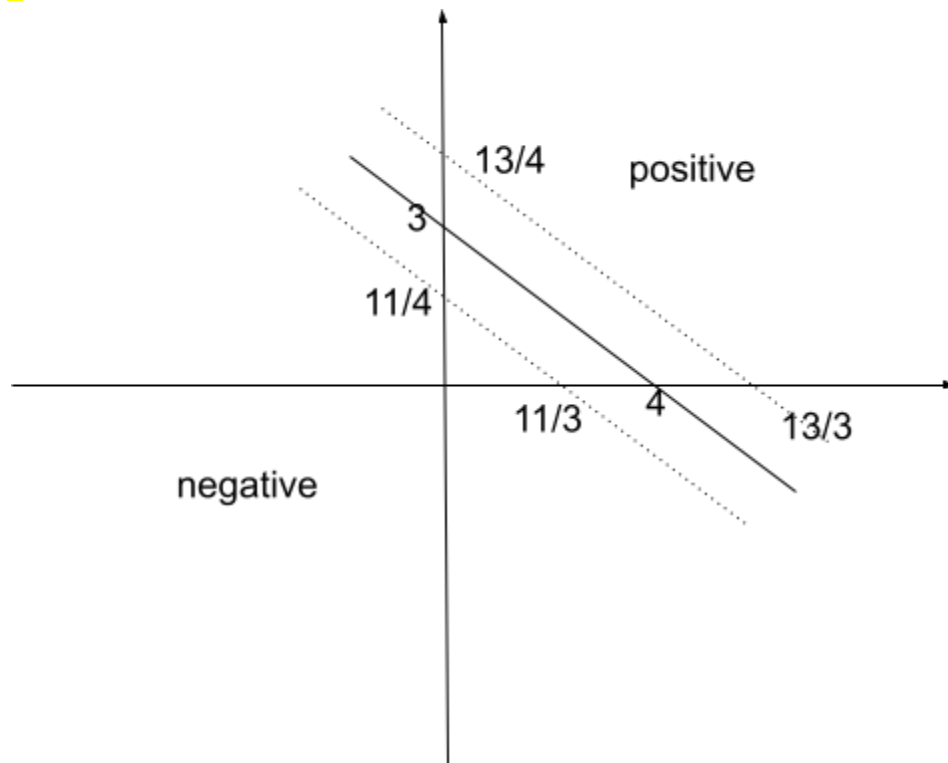
$$w = \begin{pmatrix} 1/2 \\ 1/2 \end{pmatrix}$$

$$b = -7/2$$

5  
a



**b**



**c**

$$\gamma = 1/||\omega|| = 1/5$$

**d**

*positive*

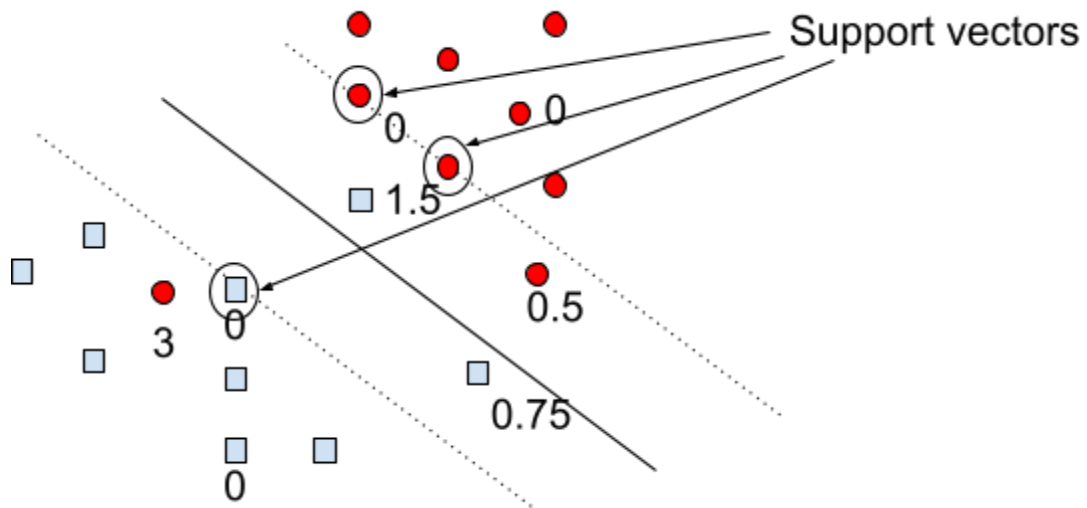
**e**

$$y = -3/4x + 11/4$$

$$y = -3/4x + 13/4$$

(1, 2), (1, 2.5)

6  
a



b  
decrease

## Worksheet 10

1

