CS 422/622 Quiz 10 Name _____

1. What w and b would a hard-margin SVM give you for the following training data? Remember that $\gamma = \frac{1}{||w||}$. (6 points)

x_1	x_2	y
-2	-2	1
-2	-3	1
-3	-2	1
2	1	-1
3	1	-1
2	2	-1

2. Given $w = (1, 1)$ and $b = 2$, find the ξ (slack variable) for each training sample provided below. Include your answers in the table. (4 points)

x_1	x_2	y	ξ
-2	-1	1	
1	1	1	
1	2	-1	
2	2	-1	