1. Run K-Means on the data below. Assume K=2 and  $\mu_1=(1,-1)$  and  $\mu_2=(2,3)$ . What are the final cluster centers? (7 points)

Sample	$x_1$	$x_2$
$s_1$	-1	1
$s_2$	0	1
$s_3$	0	2
$s_4$	1	-1
$s_5$	1	0
$s_6$	1	2
$s_7$	2	2
$s_8$	2	3

2. Name two similarities and one difference between K-NN and K-Means. (3 points)