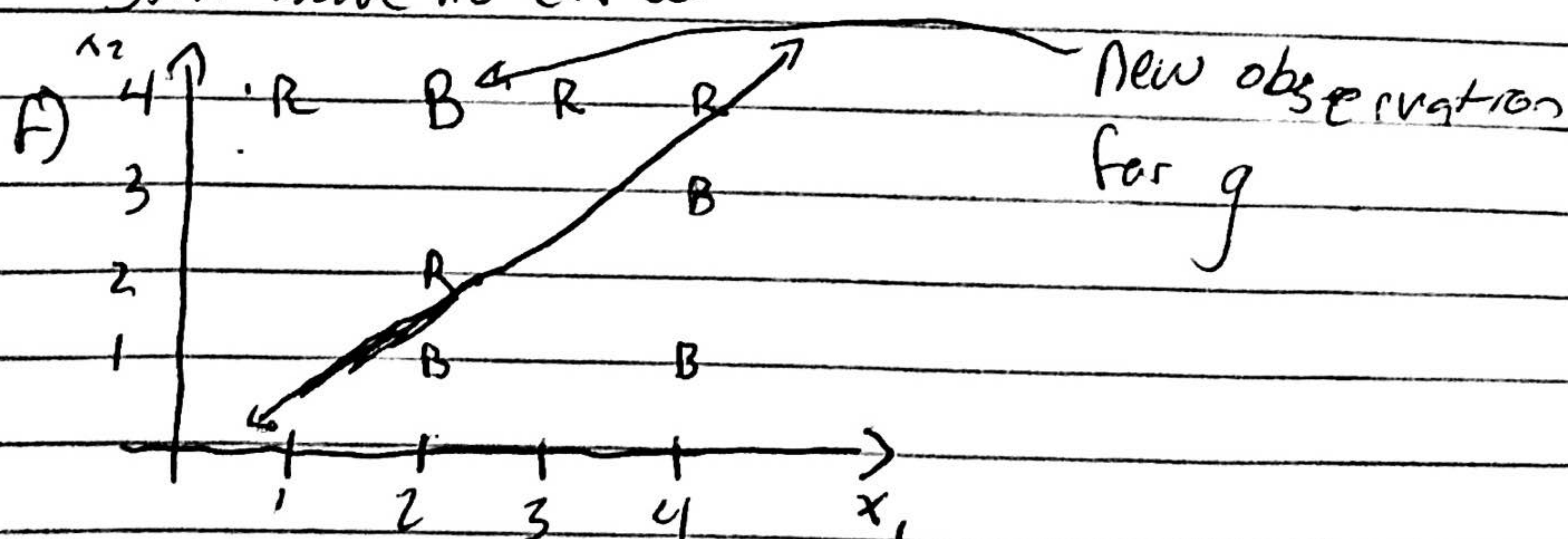


b) Classify as Red if  $0.5 - x_1 + x_2 > 0$ ,  
or classify as Blue otherwise

d) Support Vectors:  $(2, 2), (4, 4)$  : Red  
 $(2, 1), (4, 3)$  : Blue

e) As the seventh observation is not a support vector, and is not close to the support vectors, it is not considered when constructing the max-margin hyperplane. Therefore, a slight movement would not make it a support vector so it will still have no effect



Classify as Red if  $+0.5 - \frac{10}{9}x_1 + x_2 > 0$   
or Classify as Blue otherwise