

Problem Set HW 4

Siting Chang

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1 VC Dimesion

1.1 part a

VC dimension of H is 3.

It is trivial to show that there exists one or two points on the plane that can be shattered by H . We now show that H is able to shatter 3 points which implies that the VC dimension of H is at least 3. Select three points with coordinates $A(1,1)$, $B(-1,1)$ and $C()$

1.2 part b

VC dimension of H is $2k$.