

Let  $n \geq 2$ , let  $A_1, A_2, \dots, A_{n+1}$  be  $n + 1$  points in the  $n$ -dimensional Euclidean space, not lying on the same hyperplane, and let  $B$  be a point strictly inside the convex hull of  $A_1, A_2, \dots, A_{n+1}$ . Prove that  $\angle A_i B A_j > 90^\circ$  holds for at least  $n$  pairs  $(i, j)$  with  $1 \leq i < j \leq n + 1$ .