

Let  $O$  be the intersection of the diagonals  $AC$  and  $BD$  of the convex quadrilateral  $ABCD$ . Let  $S_1$ ,  $S_2$ ,  $S_3$ , and  $S_4$  denote the areas of the triangles  $ABO$ ,  $BCO$ ,  $CDO$ , and  $DAO$ , respectively. Is it possible that  $S_1$ ,  $S_2$ ,  $S_3$ , and  $S_4$  are consecutive positive integers in some order?