

Opposite Triangles

Submission deadline: April 28th 2021

Let $ABCD$ be a convex quadrilateral and O be the point of intersection of its diagonals. If

$$(\text{Area of } AOD) \cdot (\text{Area of } COB) = 2021$$

find

$$(\text{Area of } ABO) \cdot (\text{Area of } DOC)$$

Note: Vertices A, B, C, D are labelled clockwise.