



# Sabancı University Faculty of Engineering and Natural Sciences

 $\overline{ ext{CS301}- ext{Algorithms}}$ 

### Recit 11

May 22, 2024

### Question 1

Given a polygon and a point, describe an algorithm to find if the point lies inside the polygon or not. The points lying on the border are considered inside.

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### Question 2

Given a set of points and a line as ax+by+c=0. Describe an algorithm to find a point on the given line for which the sum of distances from the given set of points is minimum.



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## Question 3

Given two rectangles, write the pseudocode of a simple program to determine whether these two rectangles overlap. Each rectangle is defined by two coordinates: the top left and the bottom right. Consequently, we are provided with four coordinates: