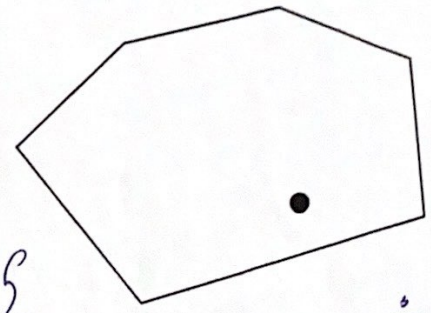
Problem 3: Write a Java function ***public static boolean isInside(double[][] vertex, double x, double y)*** that takes as its argument a ***2-by-n*** array of a convex polygon's vertex coordinates ***double[][] vertex*** – the ***x*** coordinates in the first row and ***y*** coordinates in the second row, and ***double x*** and ***double y*** coordinates of a point. It checks, if the point is inside the polygon.

Assume and use a method ***boolean toLeft(double x1, double y1, double x2, double y2, double x0, double y0)*** that takes as its arguments coordinates of three points and returns ***true***, if the third point ***(x0, y0)*** is in the left-hand side, when moving from the first point ***(x1, y1)*** to the second one ***(x2, y2)***; and ***false***, if it is in the right-hand side.



```
public static boolean isInside (double[][]
vertex, double x, double y) {
for (int i = 0; i < vertex[0].length ; i++) {
  if (boolean toLeft( vertex[0][i], vertex[0][i], vertex[0][i], vertex[0][i+1],
      vertex[1][i+1] ) {
    return true;
  }
  else { return false; }
```

6 args needed

2

Use the backside, if needed

OOP.MT.170317.H005