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# This is an algorithm that computes the area of a square minus the area of an
# inscribed circle.

UserInput(SqSideLength) # Define the side length of the square as an integer.
SquareArea = (SqSideLength)² # Compute the area of the square
Circle1Radius = 0.5(SqSideLength) # Compute the radius of the inscribed circle
Circle1Area = π(Circle1Radius)² # Compute the area of the inscribed circle
Algorithm1Area = SquareArea - Circle1Area # Compute the desired area

# This is an algorithm that computes the area of a triangle minus the area of an
# inscribed circle.

UserInput(VertexAx, VertexAy, VertexBx, VertexBy, VertexCx, VertexCy) # Define the
# cartesian coordinates of the vertices of the triangle as integers.
Def GeoLength(x1, x2, y1, y2) #Define a function that calculates the distance between
# two points as given by the formula d = √((x1 − x2)² + (y2 − y1)²).
TrSideLengthA = GeoLength(VertexBx, VertexCx, VertexBy, VertexCy) # Compute the
# length of the triangle side opposite to vertex A.
TrSideLengthB = GeoLength(VertexAx, VertexCx, VertexAy, VertexCy) # Compute the
# length of the triangle side opposite to vertex B.
TrSideLengthC = GeoLength(VertexAx, VertexBx, VertexAy, VertexBy) # Compute the
# length of the triangle side opposite to vertex C.
HalfPerimeter = (TrSideLengthA+TrSideLengthB+TrSideLengthC)/2 # Compute half the
# perimeter to use in the area of triangle as given by Heron's formula.
TriangleArea = sqrt(HalfPerimeter*(HalfPerimeter-TrSideLengthA)*(HalfPerimeter-
TrSideLengthB)*(HalfPerimeter-TrSideLengthC) # Compute the area of the triangle.
Circle2Radius = TriangleArea/HalfPerimeter # Compute the radius of the circle.
Circle2Area = π(Circle2Radius)² # Compute the area of the inscribed circle.
Algorithm2Area = TriangleArea - Circle2Area # Compute the desired area.
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