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**Project #7: Triangle Area Calculator**

Write a program that calculates area of a triangle, given its 3 points (A, B and C) in the Descartes

coordinate system.

**- Input:**

Point A (x, y): 10 20

Point B (x, y): 10 60

Point C (x, y): 80 20

**- Output**:

Area = 1400

\*/

/\* Solution: \*/

public class triangleArea

{

public static void main(String[] args)

{

Point A = new Point(10,20);

Point B = new Point(10,60);

Point C = new Point(80,20);

System.out.println("Point A (x,y) : (10,20)");

System.out.println("Point B (x,y) : (10,60)");

System.out.println("Point C (x,y) : (80,20)");

System.out.println("Area of triangle using formula 1: " + Triangle.area(A, B, C));

}

}

class Point

{

int x;

int y;

public Point(int x, int y)

{

this.x = x; this.y = y;

}

}

class Triangle

{

public static float area(Point A, Point B, Point C)

{

float area = (A.x \* (B.y - C.y) + B.x \* (C.y - A.y) + C.x \* (A.y - B.y)) / 2.0f;

return Math.abs(area);

}

}

/\*Output:

A screenshot of a computer

Description automatically generated\*/