

COS126 Perimeter.java (§2.1 Static Methods)

```
1 /* read integers xA, yA, xB, yB from stdin
2 * print perimeter of triangle with corners
3 * O=(0, 0), A=(xA, yA), B=(xB, yB)
4 *
5 * E.g.: if run with input 0 3 4 0, outputs 12.0
6 *     visualization: http://goo.gl/bSZoVH */
7 public class Perimeter {
8
9     // compute square
10    public static int sqr(int x) {
11        return x * x;
12    }
13
14    // compute distance of (x, y) from origin
15    public static double hypot(int x, int y) {
16        double sum = sqr(x);
17        sum += sqr(y);
18        return Math.sqrt(sum);
19    }
20
21    // first method to execute
22    public static void main(String[] args) {
23        int xA = StdIn.readInt();
24        int yA = StdIn.readInt();
25        int xB = StdIn.readInt();
26        int yB = StdIn.readInt();
27        double perim = 0;
28        perim += hypot(xA-xB, yA-yB); // length of side AB
29        perim += hypot(xA, yA); // length of side OA
30        perim += hypot(xB, yB); // length of side OB
31        StdOut.println(perim);
32    }
33 }
```