Problem Set 4 Exercise #11: Minimum Perimeter After Folding

Reference: Lecture 11 notes

Learning objective: Structures

Estimated completion time: 15 minutes

Problem statement:

Write a program **perimeter.c** to:

- Define a structure type **`rectangle_t`** that contains 2 **`double`** members, *side1* and *side2*, which are the lengths of 2 sides of a rectangle.
- Declare a variable of **`rectangle_t`** type and read values into its members.
- Compute the minimum perimeter if we fold this rectangle into halves once, either along the x-axis or the y-axis and display it in 1 decimal place.

Below is an illustration of Sample run #1:

3×4 3×2 1.5×4

Note:

This question can be done without creating a structure. However, let's take it as a chance to practice the use of structures.

Sample run #1:

```
Enter lengths of two sides: 3 4
Min perimeter after fold = 10.0
```

Sample run #2:

```
Enter lengths of two sides: 3.2 4.5
Min perimeter after fold = 10.9
```