

Problem Set 1 Exercise #05: Composite Shape

Reference: Lecture 2 notes

Learning objectives: Math class constant; Formatting real number output

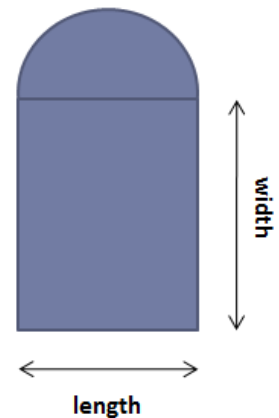
Estimated completion time: 15 minutes

Problem statement:

You are given a composite shape consists of a rectangle topped with a semi-circle. The diameter of the semi-circle is thus equal to the length of the rectangle.

Write a program **PS1_Ex05_CompositeShape.java** to read the *length* and *width* of the rectangle, compute the area of the composite shape.

You are to use the PI constant from Math class as the value for π . Display the real numbers in four decimal places.



Sample run #1:

```
Enter length of rectangle: 2
Enter width of rectangle: 4
Area = 9.5708
```

Sample run #2:

```
Enter length of rectangle: 10
Enter width of rectangle: 50.6
Area = 545.2699
```