

# Exercise 1: Calculating Area

This is a basic exercise on defining a class that helps calculate the area of a triangle.

## We'll cover the following ^

- Problem Statement
  - Input
  - Output
  - Sample Input
  - Sample Output
- Coding Challenge

## Problem Statement #

Let's start with a very basic example.

Write a *class* called `Triangle` having **two** `public` variables for `length` and `height` and **one** *member* function called `area` which will *return* the **area** of the right angle **triangle**. You can calculate the area of a triangle using

$$Area = 1/2(length)(height)$$

## Input #

two variables (integer or float) as the dimensions of the triangle

## Output #

area of that triangle

## Sample Input #

4, 5

## Sample Output #

10

# Coding Challenge #

**Write your code below.** It is recommended that you try solving the exercise yourself before viewing the solution.

**Good Luck!**

Note: There is a **test** function given in the code for testing purposes. Do not modify it.

```
<?php

//define your class here
// name your class Triangle
//name your function area


//This is a test function. Do not change it.
function test($length, $height) {

    $answer=0;
    $obj = new Triangle;
    $obj->length= $length;
    $obj->height= $height;
    echo "Area: ".$obj->area();
    $answer = $obj->area();

    return $answer;
}
?>
```

