

# Challenge 1: Compute an Expression Using Maths

In this exercise, you need to compute the expression.

We'll cover the following ^

- Problem statement
- Coding exercise

## Problem statement #

After all this number crunching, we will move onto more complex expressions. Just like a Pokemon evolves, so do the expressions you work with. The mathematical expression given below is one that is slightly more difficult than the ones we have worked with, and hence, it is a challenge for you to solve!

Below is an *illustration* showing the **expression** you need to compute:

$$\sqrt[3]{(x^2 + y^2 - |z|)}$$

## Coding exercise #

Write a code in which you:

- First, compute the **respective powers** of *two floating-point* variables `x` and `y`.
- Then **Add** them after taking **powers**.
- Then, compute the **absolute** value of **floating-point** `z`.
- Subtract this from the above-computed addition value.
- Now take **Cube Root** of the answer.
- Use **inbuilt functions** to calculate this expression

Only write the code where instructed in the snippet below. You need to calculate

the value of the expression, and then store your final result in the variable `answer`. The **return** statement and the **variable** to be returned are already mentioned for you. Don't worry too much about the return statement for the moment, and just set the value of the `answer` correctly.

Test your code against our cases and see if you can pass them.

The solution is given in case you get stuck, and the next lesson will include a review of the solution, but it is **highly recommended** that you try it yourself first!

**Good Luck!**

```
class exercise {  
    public static double exercise_one(double x, double y, double z) {  
        double answer = 0;  
        // Enter your code here  
        // Calculate the value of an expression and store the final value in the answer  
  
        /* You do not need to worry too much about the return statement for the  
        moment and just set the value of "answer" correctly*/  
        return answer;  
    }  
}
```



In the next lesson, we will review the solution to the above challenge.