Challenge 3: Calculate the Area of the Sphere

In this challenge, you need to implement a given formula to calculate the area of a sphere.

We'll cover the following

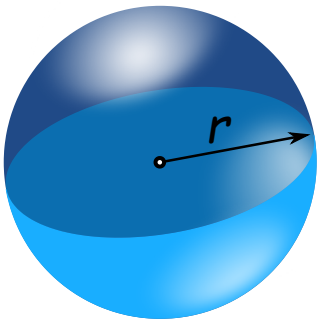
- Problem statement
  - Input
  - Output
- Coding exercise

Problem statement

In this challenge, you are given a radius `r` of the sphere. Your task is to find the area of the sphere using the following formula:

$$Area = 4 * pi * r^2$$

Here, pi is constant. Its value is 3.14.



Input

We have already initialized the variable `r` at the backend.

```
double r = 10.1;
```

Output

Your code should have the following output.

```
area = 1492.253650
```

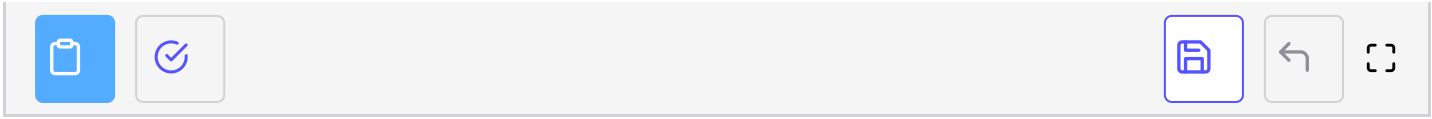
> 📝 Please use the variables `r` for the input and `area` for the output; otherwise, your code will not execute.

Coding exercise

Before diving directly into the solution, first, try to solve it yourself, and then check if your code passes all the test cases. If you get stuck, you can always see the given solution.

Good Luck! 👍

```
/* We have already declared the input variable r
at the backend.
int r;
Display the area of the sphere using the given formula.
Store your output in an area variable.
*/
double area;
```



🎉Well done! If you have solved the problem, give yourself a round of applause.

In case you are stuck, let's go over the solution review in the next lesson.