

University of Leeds

# **Circle**

Application Programming Interface

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# Data Structure Index

## Data Structures

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# Data Structure Documentation

## Circle Class Reference

Class for calculating the area of a circle.

```
#include <Circle.h>
```

### Public Member Functions

- void **set\_radius** (float radius)  
*Sets the radius.*
- float **get\_area** ()  
*Gets the circle area.*

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### Detailed Description

Class for calculating the area of a circle.

**Circle** class

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```
#include <iostream>
// include the class header file in main
#include "Circle.h"

int main() {
    std::cout << "Enter circle radius (in metres): ";
    float radius;
    std::cin >> radius;
    // create a circle object and use the public methods
    Circle circle;
    circle.set_radius(radius);
    float area = circle.get_area();
    std::cout << "The circle has an area of " << area << " m^2.\n";
    return 0;
}
```

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### Member Function Documentation

**float Circle::get\_area ()**

Gets the circle area.

**Returns:**

the area of the circle in metres squared

**void Circle::set\_radius (float *radius*)**

Sets the radius.

**Parameters:**

<i>radius</i>	Radius of the circle in metres
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**The documentation for this class was generated from the following files:**

- Circle.h
- Circle.cpp

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