

1. Write a macro definition to get the maximum given two numbers named MY\_MAX.
2. Write a programme to define the value of pi ( $\pi=3.14159265359$ ) as a macro-definition with the #define. Use the macro definition to print the value to the Terminal output.
3. Write a C program to find cube of any number using a function. (Hint  $Y = X^3$ )
4. Given the radius, write a C program to find diameter, circumference, and area of a circle using functions.

```
diameter = 2 * radius  
circumference = 2 * PI * radius  
area = PI * radius * radius
```

5. Write a C program to find maximum and minimum between two numbers using functions.
6. Write a C program to check whether a number is even or odd using functions.
7. Write a C program to check whether a number is prime using functions.

*A prime number (or a prime) is a natural number greater than 1 that cannot be formed by multiplying two smaller natural numbers.*

## Home work

1. Write a C program to check whether a number is an Armstrong number or not.

*An Armstrong number of three digits is an integer such that the sum of the cubes of its digits is equal to the number itself. For example, 371 is an Armstrong number since*

$$3^3 + 7^3 + 1^3 = 371.$$

2. Write a C program to find all prime numbers between the given interval using functions.
3. What is the problem with the following code?

<pre>// main.c file. #include "my_header1.h"  int main() {     test_fun1();     test_fun2( ); Return 0; }</pre>	<pre>// my_header1.h file. #include "my_header2.h"  int test_fun1();</pre>	<pre>// my_header2.h file #include "my_header1.h"  int test_fun2();</pre>
<pre>// test1.c int test_fun1() {     printf("This is function 1\n"); return 0; }</pre>	<pre>// test2.c int test_fun2() {     printf("This is function 2\n"); return 0; }</pre>	

4. Write a C program to print all strong numbers between the given interval using functions.

*Strong number is a special number whose sum of factorial of digits is equal to the original number.*

*For example: 145 is strong number. Since,  $1! + 4! + 5! = 145$*

