CS115 - LABWORK 5

Aim: Some practices with loops and functions.

1. Write a program, “cosine.c” that computes a table of cosine function for angles between 0 and 360 degrees.
   - sample compiling and linking: gcc -o cosineTable cosine.c -lm
   - sample running: ./cosineTable > Table.txt

2. Define the body of the below prototype with using two designs: iterative and recursive
   double power(double val, unsigned pow); /*returns some power of a real number*/

3. Write, compile and run the below program, “macroDemo.c”, referenced from
   http://www.iu.hio.no/~mark/CTutorial/CTutorial.html:

```c
#include <stdio.h>
#define STRING1        "A macro definition\n"
#define STRING2        "must be all on one line!!\n"
#define EXPRESSION     1 + 2 + 3 + 4
#define EXPR2          EXPRESSION + 10
#define ABS(x)         ((x) < 0) ? -(x) : (x)
#define MAX(a,b)       (a < b) ? (b) : (a)
#define BIGGEST(a,b,c) (MAX(a,b) < c) ? (c) : (MAX(a,b))

int main ()             /* No #definitions inside functions! */
{
    printf (STRING1);
    printf (STRING2);
    printf ("%d\n",EXPRESSION);
    printf ("%d\n",EXPR2);
    printf ("%d\n",ABS(-5));
    printf ("Biggest of 1 2 and 3 is %d",BIGGEST(1,2,3));
    return 0;
}
```