

## Geomatrical Problem sloving C programme

1. Write a complete C program to calculate area of a circle

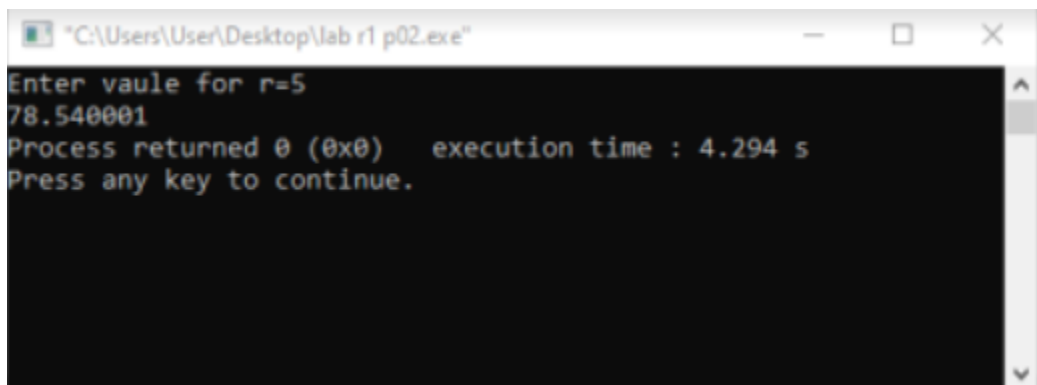
Input:

```
#include<stdio.h>

int main()
{
float A,r;
printf("Enter vaule for r=");
scanf("%f",&r);
A= 3.1416 * r * r;
printf("%f",A);

}
```

Output:

A screenshot of a Windows command prompt window titled "C:\Users\User\Desktop\lab r1 p02.exe". The window has a black background with white text. The text shows the program's execution: it prompts "Enter vaule for r=5", the user enters "5", and the program outputs "78.540001". Below this, it says "Process returned 0 (0x0) execution time : 4.294 s" and "Press any key to continue." The window has standard Windows window controls (minimize, maximize, close) in the top right corner.

```
"C:\Users\User\Desktop\lab r1 p02.exe"
Enter vaule for r=5
5
78.540001
Process returned 0 (0x0) execution time : 4.294 s
Press any key to continue.
```

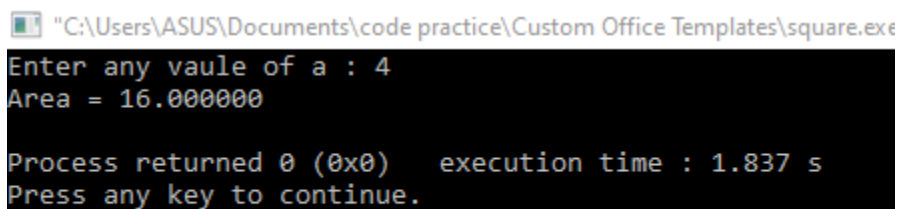
2. Write a complete C program to calculate area of a square.

Input:

```
#include<stdio.h>

int main()
{
    float a,area;
    printf("Enter any vaule of a : ");
    scanf ("%f",&a);
    area = a * a ;
    printf("Area = %f\n",area);
}
```

Output:



The screenshot shows a Windows command prompt window with the title bar "C:\Users\ASUS\Documents\code practice\Custom Office Templates\square.exe". The prompt displays the following text: "Enter any vaule of a : 4", "Area = 16.000000", "Process returned 0 (0x0) execution time : 1.837 s", and "Press any key to continue.".

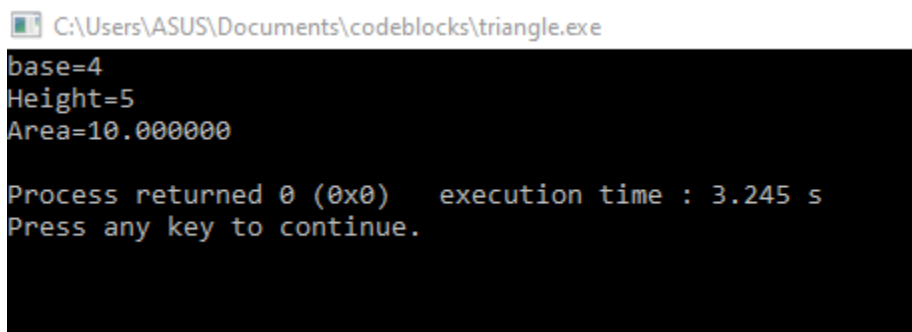
3. Write a complete C program to calculate area of a triangle.

Input:

```
#include<stdio.h>

int main()
{
    float base,height,area;
    printf("base=");
    scanf("%f",&base);
    printf("Height=");
    scanf("%f",&height);
    area = 0.5*base*height;
    printf("Area=%f\n",area);
}
```

Output:

A screenshot of a Windows command prompt window. The title bar shows the file path "C:\Users\ASUS\Documents\codeblocks\triangle.exe". The command prompt displays the output of the program: "base=4", "Height=5", and "Area=10.000000". Below this, it shows "Process returned 0 (0x0) execution time : 3.245 s" and "Press any key to continue.".

```
C:\Users\ASUS\Documents\codeblocks\triangle.exe
base=4
Height=5
Area=10.000000

Process returned 0 (0x0)   execution time : 3.245 s
Press any key to continue.
```

4. Write a complete C program to calculate area of a rectangular.

Input:

```
#include<stdio.h>
```

```
int main()
```

```
{
```

```
    float length,width,area;
```

```
    printf("Enter length = ");
```

```
    scanf("%f",&length);
```

```
    printf("Enter width = ");
```

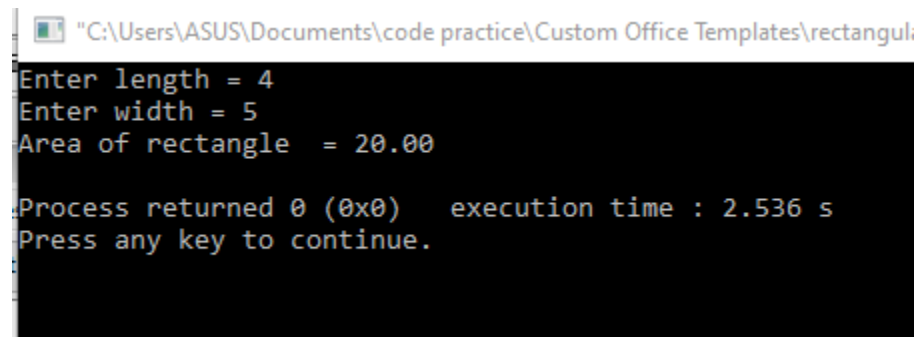
```
    scanf("%f",&width);
```

```
    area = length * width;
```

```
    printf("Area of rectangle = %.2f\n",area);
```

```
}
```

Input:



```
"C:\Users\ASUS\Documents\code practice\Custom Office Templates\rectangul  
Enter length = 4  
Enter width = 5  
Area of rectangle = 20.00  
  
Process returned 0 (0x0)   execution time : 2.536 s  
Press any key to continue.
```

5. Write a C programme to find out the value of triangle to find the range.

Input:

```
#include<stdio.h>
```

```
int main()
```

```
{
```

```
    double a,b,c,s,area;
```

```
    printf("Enter 3 values: ");
```

```
    scanf("%lf %lf %lf",&a,&b,&c);
```

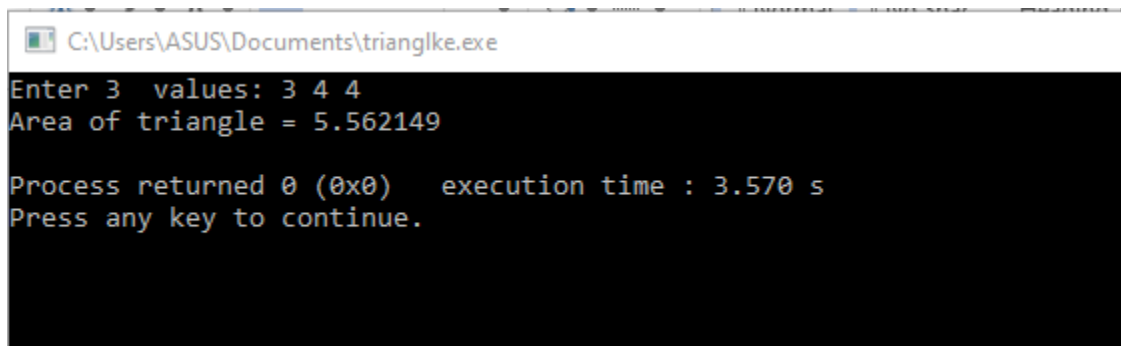
```
    s = (a+b+c)/2;
```

```
    area = sqrt(s*(s-a)*(s-b)*(s-c));
```

```
    printf("Area of triangle = %lf\n",area);
```

```
}
```

Output:



```
C:\Users\ASUS\Documents\trianglke.exe
Enter 3 values: 3 4 4
Area of triangle = 5.562149

Process returned 0 (0x0)   execution time : 3.570 s
Press any key to continue.
```