

Logic Building Assignment : 10

Create separate visual Studio project for each problem statement separately.

Calculate Time Complexity of each program.

1. Write a program which accept radius of circle from user and calculate its area.
Consider value of PI as 3.14. (Area = $\text{PI} * \text{Radius} * \text{Radius}$)

Input : 5.3
Output : 88.2026

Input : 10.4
Output : 339.6224

```
#include<stdio.h>

double CircleArea(float fRadius)
{
    // Logic
}

int main()
{
    float fValue = 0.0;
    double dRet = 0.0;

    printf("Enter radius");
    scanf("%f",&fValue);

    dRet = CircleArea(fValue);

    printf("_____");

    return 0;
}
```

2. Write a program which accept width & height of rectangle from user and calculate its area. (Area = Width * Height)

Input : 5.3 9.78
Output : 51.834

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

```
double RectArea(float fWidth, float fHeight)
{
    // Logic
}

int main()
{
    float fValue1 = 0.0, fValue2 = 0.0;
    double dRet = 0.0;

    printf("Enter width");
    scanf("%f",&fValue1);

    printf("Enter height");
    scanf("%f",&fValue2);

    dRet = RectArea(fValue1, fValue2);

    printf("_____");

    return 0;
}
```

3. Write a program which accept distance in kilometre and convert it into meter. (1 kilometre = 1000 Meter)

Input : 5
Output : 5000

Input : 12
Output : 12000

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

```
int KMtoMeter(int iNo)
{
    // Logic
}
```

```
int main()
{
    int iValue = 0, iRet = 0;

    printf("Enter distance");
    scanf("%d",&iValue1);

    iRet = KMtoMeter(iValue);
}
```

```
printf("_____");  
  
return 0;  
}
```

4. Write a program which accept temperature in Fahrenheit and convert it into celsius. (1 celsius = (Fahrenheit -32) * (5/9))

Input : 10
Output : -12.2222 (10 - 32) * (5/9)

Input : 34
Output : 1.11111 (34 - 32) * (5/9)

```
#include<stdio.h>  
  
double FhtoCs(float fTemp)  
{  
    // Logic  
}  
  
int main()  
{  
    float fValue = 0.0;  
    double dRet = 0.0;  
  
    printf("Enter temperature in Fahrenheit");  
    scanf("%d",&fValue1);  
  
    dRet = FhtoCs(fValue);  
  
    printf("_____");  
  
    return 0;  
}
```

5. Write a program which accept area in square feet and convert it into square meter. (1 square feet = 0.0929 Square meter)

Input : 5
Output : 0.464515

Input : 7
Output : 0.650321

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

```
double SquareMeter(int iValue)
{
    // Logic
}
```

```
int main()
{
    int iValue = 0;
    double dRet = 0.0;

    printf("Enter area in square feet");
    scanf("%d",&iValue);

    dRet = SquareMeter(iValue);

    printf("_____");

    return 0;
}
```

