

# Assignment 1

## Question 1 :

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

```
int main() {
    int a;
    printf("Enter an integer:\n");
    scanf("%d", &a);
    printf("%d\n\n", a);

    float b;
    printf("Enter a floating value:\n");
    scanf("%f", &b);
    printf("%g\n\n", b);

    float c;
    printf("Enter a floating value:\n");
    scanf("%f", &c);
    float tmp = ((int)(100*c));
    printf("%.2f\n\n", tmp/100);

    float d;
    printf("Enter a floating value:\n");
    scanf("%f", &d);
    float tmp1 = ((int)(100*d));
    printf("%.2f\n\n", tmp1/100);

    float e;
    printf("Enter a floating value:\n");
    scanf("%f", &e);
    printf("%f\n\n", e*e);

    char fname[100];
    char lname[100];
    printf("Enter your name:\n");
    scanf("%s %s", fname, lname);
    printf("%s %s\n\n", fname, lname);

    char college[15];
    char college1[15];
```

```

    char college2[15];
    char college3[15];
    char college4[15];
    char college5[15];
    char college6[15];
    printf("Enter your college name:\n");
    scanf("%s %s %s %s %s %s %s", college, college1, college2, college3, college4,
    college5, college6);
    printf("%s %s %s %s %s %s %s %s\n\n", college, college1, college2, college3, college4,
    college5, college6);
}

```

### Output :

```

kaushik@Freedom-PC:~/FCP_assignments$ gcc 101.c -o 101
kaushik@Freedom-PC:~/FCP_assignments$ ./101
Enter an integer:
25
25

Enter a floating value:
5.3267
5.3267

Enter a floating value:
5.3267
5.32

Enter a floating value:
5664.57567456
5664.57

Enter a floating value:
35345364
1249294719909888.000000

Enter your name:
Kaushik Bhowmick
Kaushik Bhowmick

Enter your college name:
S. V. National Institute of Technology, Surat
S. V. National Institute of Technology, Surat

kaushik@Freedom-PC:~/FCP_assignments$ █

```

## Question 2 :

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

```
int main() {  
    float radius;  
    printf("Enter radius value:\n");  
    scanf("%f", &radius);  
  
    float area = 3.141592*radius*radius;  
    printf("Area of circle : %f\n", area);  
  
    return 0;  
}
```

## Output :

```
kaushik@Freedom-PC:~/FCP_assignments$ gcc 102.c -o 102  
kaushik@Freedom-PC:~/FCP_assignments$ ./102  
Enter radius value:  
25  
Area of circle : 1963.494995  
kaushik@Freedom-PC:~/FCP_assignments$
```

## Question 3 :

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

```
int main() {  
    float principal;  
    float time;  
    float interest;  
  
    printf("Enter a principal value:\n");  
    scanf("%f", &principal);  
  
    printf("Enter the time in years:\n");  
    scanf("%f", &time);  
  
    printf("Enter a interest value in percent:\n");  
    scanf("%f", &interest);  
  
    float si = principal * time * interest/100;  
    printf("Your interest is %f\n", si);  
}
```

```

        printf("Total amount after %g years is %f\n", time, principal+si);
        return 0;
}

```

Output :

```

kaushik@Freedom-PC:~/FCP_assignments$ gcc 103.c -o 103
kaushik@Freedom-PC:~/FCP_assignments$ ./103
Enter a principal value:
350
Enter the time in years:
1.5
Enter a interest value in percent:
4
Your interest is 21.000000
Total amount after 1.5 years is 371.000000
kaushik@Freedom-PC:~/FCP_assignments$ █

```

Question 4 :

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

```

int main() {
    float far;
    float cel;

    printf("Enter the temperature value in fahrenheit: ");
    scanf("%f", &far);

    cel = (far - 32)*5/9;
    printf("The temperature in celsius : %f\n", cel);
}

```

Output :

```

kaushik@Freedom-PC:~/FCP_assignment_1$ gcc 104.c -o 104
kaushik@Freedom-PC:~/FCP_assignment_1$ ./104
Enter the temperature value in fahrenheit: 98
The temperature in celsius : 36.666668
kaushik@Freedom-PC:~/FCP_assignment_1$ █

```

## Question 5 :

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

```
int main() {  
    float a, b, c;  
  
    printf("Enter the value of a, b and c:\n");  
    scanf("%f", &a);  
    scanf("%f", &b);  
    scanf("%f", &c);  
  
    float eqn1 = a*a + 2*a*b + b*b;  
    float eqn2 = a*a - 2*a*b + b*b;  
    float eqn3 = a*a*a + b*b*b + c*c*c - 3*a*b*c;  
  
    printf("a*a + 2*a*b + b*b = %f\n", eqn1);  
    printf("a*a - 2*a*b + b*b = %f\n", eqn2);  
    printf("a*a*a + b*b*b + c*c*c - 3*a*b*c = %f\n", eqn3);  
  
}
```

## Output :

```
kaushik@Freedom-PC:~/FCP_assignment_1$ gcc 105.c -o 105  
kaushik@Freedom-PC:~/FCP_assignment_1$ ./105  
Enter the value of a, b and c:  
2 3 5  
a*a + 2*a*b + b*b = 25.000000  
a*a - 2*a*b + b*b = 1.000000  
a*a*a + b*b*b + c*c*c - 3*a*b*c = 70.000000  
kaushik@Freedom-PC:~/FCP_assignment_1$
```