

Programming Assignment I

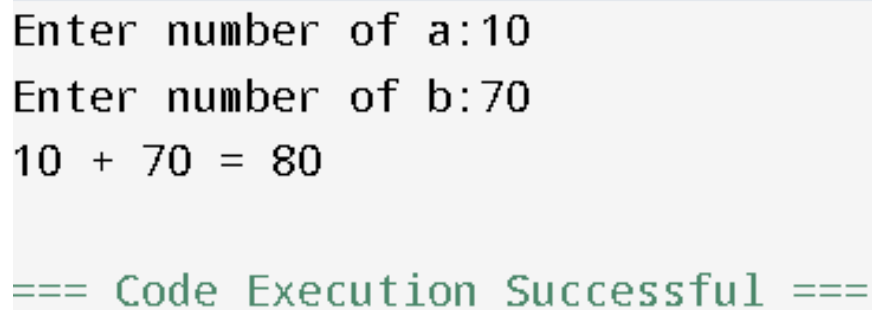
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1 Question 1: Add two numbers

```
#include <stdio.h>

int main()
{
    int a,b,c;
    printf("Enter number of a:");
    scanf("%d",&a);
    printf("Enter number of b:");
    scanf("%d",&b);
    c=a+b;
    printf("%d + %d = %d",a,b,c);
    return 0;}
```



```
Enter number of a:10
Enter number of b:70
10 + 70 = 80

=== Code Execution Successful ===
```

Figure 1: Program 1

2 Question 2: Subtract two numbers

```

#include<stdio.h>
int main()
{
    int a,b,c;
    printf("Enter number of a:");
    scanf("%d",&a);
    printf("Enter number of b:");
    scanf("%d",&b);
    c=a-b;
    printf("%d- %d = %d",a,b,c);
    return 0;
}

```

```

Enter number of a:50
Enter number of b:25
50- 25 = 25

=== Code Execution Successful ===

```

Figure 2: Program 1

3 Question 3: Multiply two numbers

```

#include<stdio.h>
int main()
{
    int a,b,c;
    printf("Enter number of a:");
    scanf("%d",&a);
    printf("Enter number of b:");
    scanf("%d",&b);
    c=a*b;
    printf("%d * %d = %d",a,b,c);
    return 0;
}

```

```
Enter number of a:4
Enter number of b:59
4 * 59 = 236

=== Code Execution Successful ===
```

Figure 3: Program 1

4 Question 4: Divide two numbers

```
#include<stdio.h>
int main()
{
    float a,b,c;
    printf("Enter number of a:");
    scanf("%f",&a);
    printf("Enter number of b:");
    scanf("%f",&b);
    c=a/b;
    printf("%f / %f = %f",a,b,c);
    return 0;
}
```

5 Question 5: Perform all operations

```
#include<stdio.h>
int main()
{
    int a,b,Add,Subtract,Multiply,Divide;
    printf("Enter number of a:");
    scanf("%d",&a);
    printf("Enter number of b:");
    scanf("%d",&b);
    Add=a+b;
    printf("%d + %d = %d\n",a,b,Add);
```

```
Enter number of a:77
Enter number of b:6
77.000000 / 6.000000 = 12.833333

=== Code Execution Successful ===
```

Figure 4: Program 1

```
Subtract=a-b;
printf("%d- %d = %d\n",a,b,Subtract);
Multiply=a*b;
printf("%d * %d = %d\n",a,b,Multiply);
Divide=a/b;
printf("%d / %d = %d\n",a,b,Divide);
return 0;
}
```

```
Enter number of a:5
Enter number of b:6
5 + 6 = 11
5- 6 = -1
5 * 6 = 30
5 / 6 = 0

=== Code Execution Successful ===
```

Figure 5: Program 1

6 Question 6: Convert Hours In To Minutes

```
#include<stdio.h>
int main(){
    int a,Minutes;
    printf("Enter the hours:");
    scanf("%d",&a);
    Minutes=a*60;
    printf("This given hours into miutes is %d * %d = %d\n",a,60,Minutes);
    return 0;
}
```

```
Enter the hours:90
This given hours into miutes is 90 * 60 = 5400

=== Code Execution Successful ===
```

Figure 6: Program 1

7 Question 7: Convert Minutes In To Hours

```
#include<stdio.h>
int main(){
    int a,Hours;
    printf("Enter the minutes:");
    scanf("%d",&a);
    Hours = a/60;
    printf("This given minutes into hours is %d / %d = %d\n",a,60,Hours);
    return 0;
}
```

8 Question 8: Convert Dollers In To Rupees

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

```
Enter the minutes:80
This given minutes into hours is 80 / 60 = 1

=== Code Execution Successful ===
```

Figure 7: Program 1

```
int main(){

int a, Rs;
printf("Enter the dollers:");
scanf("%d",&a);
Rs=a*48;
printf("This given dollers into Rs is %d * %d = %d\n",a,48,Rs);
return 0;
}
```

```
Enter the dollers:90
This given dollers into Rs is 90 * 48 = 4320

=== Code Execution Successful ===
```

Figure 8: Program 1

9 Question 9: Convert Rupees In To Dollers

```
#include<stdio.h>
int main(){

int a, Dollers;
printf("Enter the Rs:");
```

```
scanf("%d",&a);
Dollers=a / 48;
printf(" This given rupees into dollers is %d / %d = %d\n",a,48,Dollers);
return 0;
}
```

```
Enter the Rs:80
This given rupees into dollers is 80 / 48 = 1

=== Code Execution Successful ===
```

Figure 9: Program 9

10 Question 10: Convert Dollers In To Pound

```
#include<stdio.h>
int main(){

int a,Dollers,Pound;
printf(" Enter the Dollers:");
scanf("%d",&a);
Dollers=a*48;
printf(" This given dollers into Rs is %d * %d = %d\n",a,48,Dollers);
Pound = a*48/70;
printf(" This given Rs into pound is %d * 48 / 70 = %d\n",a,Pound);
return 0;
}
```

11 Question 11: Convert Grams In To Kg

```
#include<stdio.h>
int main(){

int grams,kg;
printf(" Enter the grams:");
scanf("%d",&grams);
kg=grams/1000;
```

```
Enter the Dollers:90
This given dollers into Rs is  $90 * 48 = 4320$ 
This given Rs into pound is  $90 * 48 / 70 = 61$ 

=== Code Execution Successful ===
```

Figure 10: Program 10

```
printf("The given grams into kg is %d / 1000 = %d\n",grams,kg);
return 0;
}
```

```
Enter the grams:8000
The given grams into kg is  $8000 / 1000 = 8$ 

=== Code Execution Successful ===
```

Figure 11: Program 11

12 Question 12: Convert Kg In To Grams

```
#include<stdio.h>
int main(){

    int grams,kg;
    printf("Enter the kg:");
    scanf("%d",&kg);
    grams=kg*1000;
    printf("The given kg into grams is  $%d * 1000 = %d$ \n",kg,grams);
    return 0;
```



```
}
```

```
Enter the kg:69
The given kg into grams is 69 * 1000 = 69000

=== Code Execution Successful ===
```

Figure 12: Program 12

13 Question 13: Convert Bytes In To Kb,Mb,Gb

```
#include<stdio.h>
int main(){

    float bytes ,kb,mb,gb;
    printf("Enter the bytes:");
    scanf("%f",&bytes);
    kb=bytes/1024.0;
    mb=kb/1024.0;
    gb=mb/1024.0;
    printf("The value in kb is %f / 1024 = %f\n",bytes ,kb);
    printf("The value in mb is %f / 1024 = %f\n",kb,mb);
    printf("The value in gb is %f / 1024 = %f\n",mb,gb);
    return 0;
}
```

14 Question 14: Convert Celsius In To Fahrenheit

```
#include<stdio.h>
int main(){

    float celsius ,fahrenheit;
```

```
Enter the bytes:7999
The value in kb is 7999.000000 / 1024 = 7.811523
The value in mb is 7.811523 / 1024 = 0.007628
The value in gb is 0.007628 / 1024 = 0.000007

=== Code Execution Successful ===
```

Figure 13: Program 13

```
printf("Enter temperature in celsius:");
scanf("%f",&celsius);
fahrenheit=(9.0/5.0*celsius)+32;
printf("Temperature in fahrenheit: 9/5 * %f + 32 = %f\n",celsius ,fahrenheit);
return 0;
}
```

```
Enter temperature in celsius:800
Temperature in fahrenheit: 9/5 * 800.000000 + 32 = 1472.000000

=== Code Execution Successful ===
```

Figure 14: Program 14

15 Question 15: Convert Fahrenheit In To Celsius

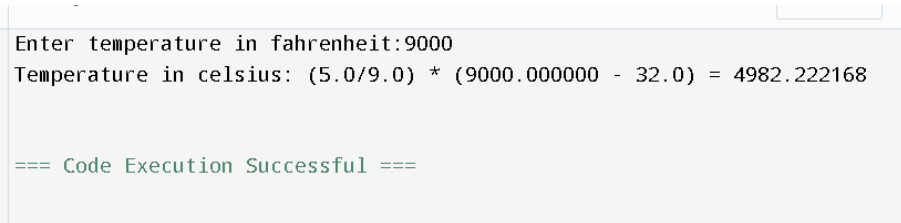
```
#include<stdio.h>
int main(){

float celsius ,fahrenheit;
printf("Enter temperature in fahrenheit:");
scanf("%f",&fahrenheit);
```

```

celsius=(5.0/9.0)*(fahrenheit-32.0);
printf("Temperature in celsius: (5.0/9.0) * (%f - 32.0) = %f\n",fahrenheit,celsius);
return 0;
}

```



```

Enter temperature in fahrenheit:9000
Temperature in celsius: (5.0/9.0) * (9000.000000 - 32.0) = 4982.222168

=== Code Execution Successful ===

```

Figure 15: Program 15

16 Question 16: Calculate Interest

```

#include<stdio.h>
int main(){

float p,r,n,i;
printf("Enter the principal amount:");
scanf("%f",&p);
printf("Enter the rate of interest:");
scanf("%f",&r);
printf("Enter the number of years:");
scanf("%f",&n);
i=p*r*n/100;
printf("The interest is %f * %f * %f / 100 = %f\n",p,r,n,i);
return 0;
}

```

17 Question 17: Area and Perimeter of a Square

```

#include<stdio.h>
int main(){

int a,p,l;
printf("Enter the side length of the square:");
scanf("%d",&l);
a=l*l;
p=4*l;

```

```
Enter the principal amount:9000
Enter the rate of interest:8
Enter the number of years:3
The interest is 9000.000000 * 8.000000 * 3.000000 / 100 = 2160.000000

=== Code Execution Successful ===
```

Figure 16: Program 16

```
printf("Area of the square is: %d * %d = %d\n",l,l,a);
printf("Perimeter of the square is: 4 * %d = %d\n",l,p);
return 0;
}
```

```
Enter the side length of the square:9
Area of the square is: 9 * 9 = 81
Perimeter of the square is: 4 * 9 = 36

=== Code Execution Successful ===
```

Figure 17: Program 17

18 Question 18: Area and Perimeter of a Rectangle

```
#include<stdio.h>
int main(){

int a,l,b,p;
printf("Enter the length of the rectangle:");
scanf("%d",&l);
```

```

printf("Enter the breadth of the rectangle:");
scanf("%d",&b);
a=l*b;
p=2*(l+b);
printf("Area of the rectangle is: %d * %d = %d\n",l,b,a);
printf("Perimeter of the rectangle is: 2 * (%d + %d) = %d\n",l,b,p);
return 0;
}

```

```

Enter the length of the rectangle:78
Enter the breadth of the rectangle:67
Area of the rectangle is: 78 * 67 = 5226
Perimeter of the rectangle is: 2 * (78 + 67) = 290

=== Code Execution Successful ===

```

Figure 18: Program 18

19 Question 19: Area of a Circle

```

#include<stdio.h>
int main(){

float r,a;
printf("Enter the radius of the circle:");
scanf("%f",&r);
a=(22.0/7.0)*r*r;
printf("Area of the circle is: (22.0/7.0) * %f * %f = %f\n",r,r,a);
return 0;
}

```

20 Question 20: Area of a Triangle

```

#include<stdio.h>

```

```
Enter the radius of the circle:9
Area of the circle is: (22.0/7.0) * 9.000000 * 9.000000 = 254.571426

=== Code Execution Successful ===
```

Figure 19: Program 19

```
int main(){

float a,h,l;
printf("Enter the length of base of triangle:");
scanf("%f",&l);
printf("Enter the height of triangle:");
scanf("%f",&h);
a=l*h/2;
printf("Area of the triangle is: %f * %f / 2 = %f\n",l,h,a);
return 0;
}
```

```
Enter the length of base of triangle:89
Enter the height of triangle:67
Area of the triangle is: 89.000000 * 67.000000 / 2 = 2981.500000

=== Code Execution Successful ===
```

Figure 20: Program 20

21 Question 21: Net Salary

```
#include<stdio.h>
int main(){

float Net,Gross,Allowance,Deduction;
printf("Enter the gross salary:");
scanf("%f",&Gross);
Allowance=Gross*0.1;
```

```

Deduction=Gross*0.03;
Net=Gross+Allowance-Deduction;
printf(" Allowance is: %f * 0.1 = %f\n",Gross,Allowance);
printf(" Deduction is: %f * 0.03 = %f\n",Gross,Deduction);
printf("Net salary is: %f + %f - %f = %f\n",Gross,Allowance,Deduction,Net);
return 0;
}

```

```

Enter the gross salary:7000
Allowance is: 7000.000000 * 0.1 = 700.000000
Deduction is: 7000.000000 * 0.03 = 210.000000
Net salary is: 7000.000000 + 700.000000 - 210.000000 = 7490.000000

=== Code Execution Successful ===

```

Figure 21: Program 21

22 Question 22: Net Sales with Discount

```

#include<stdio.h>
int main(){

float Net,Gross;
printf("Enter the gross sales:");
scanf("%f",&Gross);
Net=Gross-(0.1*Gross);
printf("Net sales is: %f - (0.10 * %f) = %f\n",Gross,Gross,Net);
return 0;
}

```

```

Enter the gross sales:6888
Net sales is: 6888.000000 - (0.10 * 6888.000000) = 6199.200195

=== Code Execution Successful ===

```

Figure 22: Program 22

23 Question 23: Total and Average Marks

```
#include<stdio.h>
int main(){

    float s1,s2,s3,total,average;
    printf("Enter marks of subject 1:");
    scanf("%f",&s1);
    printf("Enter marks of subject 2:");
    scanf("%f",&s2);
    printf("Enter marks of subject 3:");
    scanf("%f",&s3);
    total=s1+s2+s3;
    average=total/3;
    printf("Total Marks - %f + %f + %f = %f\n",s1,s2,s3,total);
    printf("Average Marks = %f / 3 = %f\n",total,average);
    return 0;
}
```

```
Enter marks of subject 1:80
Enter marks of subject 2:79
Enter marks of subject 3:99
Total Marks - 80.000000 + 79.000000 + 99.000000 = 258.000000
Average Marks = 258.000000 / 3 = 86.000000

=== Code Execution Successful ===
```

Figure 23: Program 23

24 Question 24: Swap Two Numbers

```
#include<stdio.h>
int main(){

    int a,b,temp;
    printf("Enter the value of a:");
```



```
scanf("%d",&a);
printf("Enter the value of b:");
scanf("%d",&b);
printf("Before swapping: a = %d and b = %d\n",a,b);
temp=a;
a=b;
b=temp;
printf("After swapping: a = %d and b = %d\n",a,b);
return 0;
}
```

```
Enter the value of a:66
Enter the value of b:33
Before swapping: a = 66 and b = 33
After swapping: a = 33 and b = 66
```

```
=== Code Execution Successful ===
```

Figure 24: Program 24