

**1) Write a menu driven C Program to design a simple calculator which solves 10 operations - 4 Arithmetic, 4 Relational and any two of your choice. The program should loop till the user wishes to stop.**

```
_#include<stdio.h>
#include<math.h>
#include<stdlib.h>
void main()
{
    int a,b,c;
    float avg;
    printf("Enter the first number\n");
    scanf("%d",&a);
    printf("Enter the second number\n");
    scanf("%d",&b);
    while(1)
    {
        printf("\nEnter the choice\n");
        printf("\n 1-Addition \n 2-Subtraction \n 3-Multiplication \n 4-Division");
        printf("\n 5-Greatest of two numbers \n 6-Smallest of two numbers \n 7-The
        two numbers are equal \n 8-The two numbers are not equal \n 9-Remainder \n
        10-Average\n 0-To exit\n");
        scanf("%d",&c);
        switch(c)
        {
            case 1:
                printf("Sum=%d",a+b);
```

```
break;
```

case 2:

```
printf("Difference=%d",a-b);
```

```
break;
```

case 3:

```
printf("Product=%d",a*b);
```

```
break;
```

case 4:

```
printf("Quotient=%d",a/b);
```

```
break;
```

case 5:

```
if(a>b)
```

```
printf("The Greatest number among the two is %d",a);
```

```
else
```

```
printf("The Greatest number among the two is %d",b);
```

```
break;
```

case 6:

```
if(a<b)
```

```
printf("The Smallest number among the two is %d",a);
```

```
else
```

```
printf("The Smallest number among the two is %d",b);
```

```
break;
```

case 7:

```
if(a==b)
```

```
printf("True\n");
```

```
else
```

```
printf("False\n");
```

```
break;
```

```
case 8:
```

```
if(a!=b)
```

```
printf("True\n");
```

```
else
```

```
printf("False\n");
```

```
break;
```

```
case 9:
```

```
printf("Remainder=%d",a%b);
```

```
break;
```

```
case 10: ;
```

```
printf("Average=%f",(a+b)/2.0);
```

```
break;
```

```
case 0:
```

```
exit(0);
```

```
default:
```

```
printf("Invalid input!Please try again later\n");
```

```
}
```

```
}
```

```
}
```

Select F:\88888888.exe

Enter the first number

5

Enter the second number

8

Enter the choice

- 1-Addition
- 2-Subtraction
- 3-Multiplication
- 4-Division
- 5-Greatest of two numbers
- 6-Smallest of two numbers
- 7-The two numbers are equal
- 8-The two numbers are not equal
- 9-Remainder
- 10-Average
- 0-To exit

3

Product=40

Enter the choice

- 1-Addition
- 2-Subtraction
- 3-Multiplication
- 4-Division
- 5-Greatest of two numbers
- 6-Smallest of two numbers
- 7-The two numbers are equal
- 8-The two numbers are not equal
- 9-Remainder
- 10-Average
- 0-To exit

5

The Greatest number among the two is 8

Enter the choice

- 1-Addition
- 2-Subtraction
- 3-Multiplication
- 4-Division
- 5-Greatest of two numbers
- 6-Smallest of two numbers
- 7-The two numbers are equal
- 8-The two numbers are not equal
- 9-Remainder
- 10-Average
- 0-To exit

10

Average=6.500000

Enter the choice

- 1-Addition
- 2-Subtraction
- 3-Multiplication
- 4-Division
- 5-Greatest of two numbers
- 6-Smallest of two numbers
- 7-The two numbers are equal
- 8-The two numbers are not equal
- 9-Remainder
- 10-Average
- 0-To exit

0

Process returned 0 (0x0) execution time : 13.311 s

Press any key to continue.

**2) Write a C program to accept three numbers from the user. Find the greater two among the three and pass them as parameters to the user defined functions given below.**

**a. sumaver ( ... ) which finds the sum and average of the two numbers. Print the sum and return the average.**

**b. printeven ( ... ) which prints all the even numbers between the given two numbers**

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

```
float sumaver(int x,int y)
```

```
{  
    printf("Sum: %d\n",x+y);  
    return((x+y)/2.0);  
}
```

```
void printeven(int x,int y)
```

```
{  
    printf("All the even numbers from %d to %d are\n",y,x);  
    for(int i=y;i<=x;i++)  
    {  
        if(i%2==0)  
            printf("%d ",i);  
    }  
}
```

```
int main()
{
    int a[3],g1,g2,t;
    printf("Enter the three numbers\n");
    scanf("%d%d%d",&a[0],&a[1],&a[2]);
    for(int i=0;i<3;i++)
    {
        for(int j=i+1;j<3;j++)
        {
            if(a[i]<a[j])
            {
                t=a[i];
                a[i]=a[j];
                a[j]=t;
            }
        }
    }

    g1=a[0];
    g2=a[1];
    float aver=sumaver(g1,g2);
    printf("Average: %f\n",aver);
    printeven(g1,g2);
    return 0;
}
```

F:\555555.exe

Enter the three numbers

5 8 3

Sum: 13

Average: 6.500000

All the even numbers from 5 to 8 are

6 8

Process returned 0 (0x0) execution time : 2.564 s

Press any key to continue.

■