1. Display multiple variables.

Sample variables:

a+c,x+c,dx+x,a+x,s+b,ax,+b,s+c,ax+c,ax+ux

```
#include <stdio.h>


 int main() {
      int a = 125, b = 12345;
      long ax = 1234567890;
      short s = 4043;
      float x = 2.13459;
      double dx = 1.1415927;
      char c = 'W';
      unsigned long ux = 2541567890;


      printf("a+b=%d",a+b);
      printf("\na+c=%d    ==> letter will be converted in to ASCII and sum with integer.",a+c);
      printf("\nx+c=%f",x+c);
      printf("\ndx+x=%lf",dx+x);
      printf("\na+x=%f",a+x);
      printf("\ns+b=%i",s+b);
      printf("\nax+b=%li",ax+b);
      printf("\ns+c=%i",s+c);
      printf("\nax+c=%li",ax+c);
      printf("\nax+ux=%li",ax+ux);


 return 0;
}
```

Output:

a+b=12470

a+c=212 ==> letter will be converted in to ASCII and sum with integer.

x+c=89.134590

dx+x=3.276183

a+x=127.134590

s+b=16388

ax+b=1234580235

s+c=4130

ax+c=1234567977

ax+ux=3776135780

2.Convert specified days into years,weeks and days.

```
#include <stdio.h>

int main() {
    int days,years,weeks;
    printf("Enter days: ");
    scanf("%d" , &days);
    years = days/365;
    weeks = (days % 365)/7;
    days = days- ((years*365) + (weeks*7));

    printf("Years: %d\n" , years);
```

```
    printf("Weeks: %d\n" , weeks);
    printf("Days: %d" , days);

return 0;
}
```

Output:

```
Enter days: 1329
Years: 3
Weeks: 33
Days: 3
```

3.Accepts two item’s weight(floating points’ values)and numberof purchase(floating points’ values)and calculate the average value of the items.

```
#include<stdio.h>
int main()
{
    float w1,w2,np1,np2,avg;
    printf("enter the weight of 1st item:");
    scanf("%f", &w1);
    printf("no of purchase:");
    scanf("%f", &np1);
    printf("enter the weight of 2nd item:");
    scanf("%f" , &w2);
    printf("no of purchase:");
    scanf("%f", &np2);
    avg=((w1*np1)+(w2*np2))/(np1+np2);
    printf("average value of the item is:%f\n",avg);
    return 0;
```

out put:-

```
enter the weight of 1st item:15
no of purchase:3
enter the weight of 2nd item:20
no of purchase:5
average value of the item is:18.125000
```

4.Create enumerated data type for 7days and display their values in integer constants.

```
#include <stdio.h>

int main() {
enum week{Sun, Mon, Tue, Wed, Thu, Fri, Sat};
printf("Sun = %d", Sun);
printf("\nMon = %d", Mon);
printf("\nTue = %d", Tue);
printf("\nWed = %d", Wed);
printf("\nThu = %d", Thu);
printf("\nFri = %d", Fri);
printf("\nSat = %d", Sat);

return 0;
}
```

Output:

Sun = 0

Mon = 1

Tue = 2

Wed = 3

Thu = 4

Fri = 5

Sat = 6

5.Convert Centigrade to Fahrenheit.

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

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

      fahrenheit = (centigrade * 9 / 5) + 32;

      printf("%.2f Centigrade = %.2f Fahrenheit", centigrade, fahrenheit);

      return 0;
}
```

Output:

```
Enter temperature in centigrade: 40
40 Centigrade = 104.00 Fahrenheit
```

6.Takes minutes as input,and display the total number of hours and minutes.

```
#include <stdio.h>


int main()
{


int m,h,m1;
printf("Enter total Minutes : ");
scanf("%d",&m);
h=m/60;
m1=(m-h*60);
printf("h: %d, m: %d    ",h,m1);


  return 0;
}
```

Output:

Enter total Minutes : 337

h: 5, m: 37

7.Prints the perimeter of a rectangle to take its height and width as input.

```
#include <stdio.h>


int main() {
        int width;
        int height;
        int perimeter;


        printf("Enter the height of the Rectangle : ");
       scanf("%d", &height);
       printf("Enterthe width of the Rectangle : ");
       scanf("%d", &width);
       perimeter = 2 * (height + width);
       printf("Perimeter of the Rectangle is : %d\n",perimeter);
       return 0;
}
```

Output:

Enter the height of the Rectangle : 5

Enterthe width of the Rectangle : 8

Perimeter of the Rectangle is : 26

8.By using +,/,%=,>=,! operators.

```
#include <stdio.h>

int main() {
        int a = 8,b = 4,c;
        c = a + b;
        printf("a + b = %d \n",c);
        c = a / b;
        printf("a / b = %d \n",c);
        c %= a;
        printf("c = %d \n",c);
        printf("%d >= %d is %d \n", a, b, a >= b);
        c = !(a != b);
        printf("!(a != b) is %d \n", c);
```

```
    return 0;
}
```

Output:

```
a + b = 12
a / b = 2
c = 2
8 >= 4 is 1
!(a != b) is 0
```

9.By using &,|,>>,?:,|| operators.

```
#include <stdio.h>

int main() {
  int a = 10,b = 25,c = 28,d,i;

  printf("d= %d\n", a&b);
  printf("d= %d\n", a|b);
  for(i=0;i<=2;++i)
  printf("Right shift by %d :%d\n",i,c>>i);
  d=((a==10)?(5):(2));
  printf("The value of 'd' variable is : %d\n",d);
  d= (a == b) || (c < b);
  printf("(a == b) || (c < b) is %d\n", d);

  return 0;

}
```

Output:

```
d= 8
d= 27
Right shift by 0 :28
Right shift by 1 :14
Right shift by 2 :7
The value of 'd' variable is : 5
(a == b) || (c < b) is 0
```

10.Find the size of int,float,double and char.

```
#include <stdio.h>

int main() {
    int intType;
    float floatType;
    double doubleType;
    char charType;
```

```
    printf("Size of int: %zu bytes\n", sizeof(intType));
    printf("Size of float: %zu bytes\n", sizeof(floatType));
    printf("Size of double: %zu bytes\n", sizeof(doubleType));
    printf("Size of char: %zu byte\n", sizeof(charType));

  return 0;
}
```

Output:

```
Size of int: 4 bytes
Size of float: 4 bytes
Size of double: 8 bytes
Size of char: 1 byte
```