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 number of purchase(floating points' values)and calculate the average value of the items.

```
#include <stdio.h>
float main()
    {
     float wi1, ci1, wi2, ci2, result;
      printf("Weight - Item1: ");
     scanf("%f", &wi1);
     printf("No. of item1: ");
     scanf("%f", &ci1);
     printf("Weight - Item2: ");
     scanf("%f", &wi2);
     printf("No. of item2: ");
     scanf("%f", &ci2);
     result = ((wi1 * ci1) + (wi2 * ci2)) / (ci1 + ci2);
     printf("Average Value = %f\n", result);
     return 0;

}
```

Output:

```
Weight - Item1: 15
No. of item1: 5
Weight - Item2: 25
No. of item2: 4
Average Value = 19.444445
```

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
```