**1.Display multiple variables.**

**Sample Variables :**

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

**declaration :**

**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;**

```
#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\n" , 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 valie 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 – Item: 25

No. of item2: 4

Average Value = 19.444445
```

**4.Create enumerated datatype for 7 days and display their values in integer constants.**

```
#include <stdio.h>
int main()
{
   enum week{Sun,Mon,Tues,Wed,Thur,Fri,Sat};
   printf("Sun = %d",Sun);
   printf("\nMon = %d",Mon);
   printf("\nTues = %d",Tues);
   printf("\nWed = %d",Wed);
   printf("\nThur = %d",Thur);
   printf("\nFri = %d",Fri);
   printf("\nSat = %d",Sat);
    return 0;
}
```

**Output:**

```
Sun = 0
Mon = 1
Tues = 2
Wed = 3
Thur = 4
Fri  =  5
Sat = 6
```

**5.Converts centigrade to Fahrenheit.**

```
#include <stdio.h>
float main()
{
   float centigrade,fahrenheit;
   printf("Enter temperture in centigrade:");
   scanf("%f",&centigrade);
   fahrenheit = (centigrade*9/5)+32;
   printf("%.2f Centigrade = %.2f Fahrenheit",centigrade,fahrenheit);
   return 0;
}
```

**Output:**

```
Enter temperture in centigrade:30
30.00 Centigrade = 86.00 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);
retrun 0;
}
```

**Output:**

```
Enter total minutes : 354
h: 5, m:54
```

**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(“Enter the 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 :6
Enter the width of the Rectangle :4
Perimeter of the Rectangle is :20
```

**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);
retrun o;
}
```

**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: %uz bytes\n”, sizeof(intType));
printf(“Size of float: %uz bytes\n”, sizeof(floatType));
printf(“Size of double: %uz bytes\n”, sizeof(doubleType));
printf(“Size of char: %uz bytes\n”, sizeof(charType));
return 0;
}
```

**Output:**

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