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;
```

Answer :

```
#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 + c = %d \n", a + c);

printf("x + c = %g \n", x + c);

printf("dx + x = %g \n", dx + x);

printf("a + x = %.5f \n", a + x);
```

```
    printf("s + b = %d \n", s + b);

    printf("ax + b = %d \n", ax + b);

    printf("s + c = %g \n", s + c);

    printf("ax + c = %f \n", ax + c);

    printf("ax + ux = %ld \n", ax + ux);

     return 0;

}
```

Output:

a + c = 212

x + c = 89.1346

dx + x = 3.27618

a + x = 127.13459

s + b = 16388

ax + b = 1234580235

s + c = 127.135

ax + c = 127.134600

ax + ux = -518831516

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

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

const int year = 365 , week = 7;
int day , result , result2;

printf("Enter number of days");
scanf("%d",&day);

result = day / year ;
result2 = day / week;

printf("Input days is equal to :: \n years = %d \n weeks = %d \n days = %d",result,result2,day);

 return 0;
}
```

Output :

```
Enter number of days365
Input days is equal to ::
 years = 1
 weeks = 52
 days = 365
```

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

```
#include<stdio.h>
int main(){
enum days{sun,mon,tue,wed,thu,fri,sat};

printf("sun = %d \n mon = %d \n tue = %d \n wed = %d \n thu = %d \n fri = %d \n sat = %d",sun,mon,tue,wed,thu,fri,sat);

return 0;
}
```

Output :

sun = 0

mon = 1

tue = 2

wed = 3

thu = 4

fri = 5

sat = 6

5. Converts Centigrade to Fahrenheit.

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

float cel , fah , result ;

printf("Input temperature in celsius :: ");
scanf("%f",&cel);

result = (cel * 1.8) + 32 ;

printf("Celsius :: %g C \n Fahrenheit :: %g F",cel,result);

return 0;
}
```

Output:

Input temperature in celsius :: 9.7

Celsius :: 9.7 C

Fahrenheit :: 49.46 F

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

```
#include<stdio.h>
int main(){
float min , hours ;
printf("Input Minutes :: ");
scanf("%f",&min);

hours = min / 60 ;

printf("%g minute = %g hour",min,hours);

return 0;
}
```

Output:

Input Minutes :: 120

120 minute = 2 hour

Input Minutes :: 50

50 minute = 0.833333 hour

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

```
#include<stdio.h>
int main(){
float height , width ,result ;
printf("Input height and width of a rectangle :: ");
scanf("%f%f",&height,&width);

result = 2 * (height + width);
printf("perimeter of a rectangle is = %g ",result);

 return 0;
}
```

Output:

```
Input height and width of a rectangle :: 15
16
perimeter of a rectangle is = 62

Input height and width of a rectangle :: 5.6
9.7
perimeter of a rectangle is = 30.6
```

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

```
#include<stdio.h>

int main(){
int a = 12 , b = 6 ;
printf("using '+' a + b = %d \n",a + b);
printf("using '/' a / b = %d \n",a / b);
printf("using  %d \n",a %= b);
printf("using '>=' a >= b = %d \n",a >= b);
printf("using '!' a ! b = %d",a != b);
return 0;


}
```

Output:

```
using '+' a + b = 18
using '/' a / b = 2
using  0
using '>=' a >= b = 0
using '!' a ! b = 1
```

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

```
#include<stdio.h>


int main(){

int a = 12 , b = 6 ;
printf("a & b = %d \n",a & b);
printf("a | b = %d \n",a | b);
printf("a >> b = %d \n",a >> b);
printf("a ?: b = %d \n",a ?: b);
printf("a || b = %d \n",a || b);
return 0;


}
```

Output:

```
a & b = 4
a | b = 14
a >> b = 0
a ?: b = 12
a || b = 1
```

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

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

int a ;
float b ;
double c ;
char d ;

printf("size of int :: %d bytes \n",sizeof(a));
printf("size of float :: %d bytes \n",sizeof(b));
printf("size of double :: %d bytes \n",sizeof(c));
printf("size of char :: %d bytes \n",sizeof(d));

return 0;
}
```

Output:

```
size of int :: 4 bytes
size of float :: 4 bytes
size of double :: 8 bytes
size of char :: 1 bytes
```