Q1 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=244 ==> letter will be converted in to ASCII and sum with integer.

x+c=121.134590

dx+x=3.276183

a+x=127.134590

s+b+16388

ax+b=1234580235

s+c=4162

ax+c=1234568009

ax+ux=3776135780

Q2 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:1468\
Years:4
Weeks:1
Days: 1
```

Q3 - Accepts two items weight(floating points values) and number purchase (floating points and values) and calculate the average value of the items.

```
#include <stdio.h>

float main() {
   float w1,w2,c1,c2,avg;
   printf("Enter the weight1:");
```

```
   scanf("%f",&w1);
   printf("Enter the weight2:");
   scanf("%f",&w2);
   printf("Enter the number of purchased item of weight1:");
   scanf("%f",&c1);
   printf("Enter the number of purchased item of weight2:");
   scanf("%f",&c2);
    avg = ((w1*c1)+(w2*c2))/(c1+c2);
   printf("\nAverage value = %f\n", avg);


   return 0;
}
```

OUTPUT

```
Enter the weight1:60
Enter the weight2:120
Enter the number of purchased item of weight1:10
Enter the number of purchased item of weight2:20
Average value = 100.000000
```

Q4- Create enumerated data type for 7 days 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
```

Q5- convert centigrade to fahrenheit.

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

```
int 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:50
50.000000 centigrade = 122.000000 Fahrenheit
```

Q6-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:456

h: 7, m: 36
```

Q7-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: 9

perimeter of the rectangle is: 30

Q8- 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

Q9-By using &,|,>>,?:,|| operators.

```
#include <stdio.h>


int main() {
 int a = 15 ,b = 25,c = 30,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==15)?(5):(3));
 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=9

d=31

Right shift by 0:30

Right shift by 1:15

Right shift by 2:7

The value of 'd' variable is:5

(a==b)||(c<b) is 0

Q10- 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 bytes\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 bytes