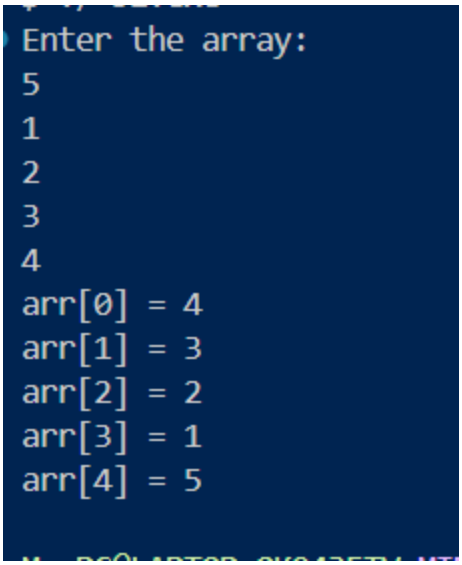
Problem No: 2302056_50

Problem Name: Write a C program to read an array of length 6, change the first element by the last, the second element by the fifth and the third element by the fourth. Print the elements of the modified array.

Input:

```c
#include<stdio.h>       You, yesterday • first co

int main()
{
    int n =5;
    int arr[n];
    printf("Enter the array: \n");
    for(int i=4; i>=0; i--){
        scanf("%d",&arr[i]);
    }
    for(int i=0; i<n; i++){
        printf("arr[%d] = %d\n",i,arr[i]);
    }
    return 0;
}
```

Output:



Problem No: 2302056_52

Problem Name: Write a C program to read an array of length 6 and find the smallest element and its position.

Input:

```c
#include<stdio.h>

int main()
{
    int n;      You, yesterday • first comm
    int position = 0;
    printf("Enter the number: ");
    scanf("%d",&n);
    int arr[n];
    printf("Enter numbers: \n");
    for(int i=0; i<n; i++){
        scanf("%d",&arr[i]);
    }
    int small = arr[0];
    for(int i=0; i<n; i++){
        if(small>arr[i]){
            small = arr[i];
            position =i+1;
        }
    }
```

```
21      printf("Smallest value = %d\n",small);
22      printf("Array Position = %d",position);
23      return 0;
24  }
```

Output:

```
Enter the number: 5
Enter numbers:
1
2
3
4
5
Smallest value = 1
Array Position = 0
```

Problem No: 2302056_52

Problem Name: Write a C program that accepts the principle, rate of interest, and time and calculates simple interest.

Input:

```c
#include<stdio.h>
int main()
{
    int i,p,r,t;
    printf("Enter N: ");
    scanf("%d",&p);
    printf("Enter r: ");
    scanf("%d",&r);
    printf("Enter t: ");
    scanf("%d",&t);
    i= (p*r*t)/100;
    printf("Interest : %d",i);
    return 0;
}
```

Outptu:

```
Enter N: 10000
Enter r: 10
Enter t: 12
Interest : 12000
```

Problem No: 2302056_54

Problem Name: Write a C program that accepts a distance in centimeters and prints the corresponding value in inches.

Input:

```c
#include<stdio.h>

int main()
{
    float cms,inch;
    printf("Enter N: ");
    scanf("%f",&cms);
    inch=cms/2.54;
    printf("Inch : %f",inch);
    return 0;
}
```

Output:

```
Enter N: 500
Inch : 196.850388
```

Problem No: 2302056_55

Problem Name: Write a C program that swaps two numbers without using a third variable.

Input:

```c
#include<stdio.h>
int main()
{
    int x,y;
    printf("Enter x:");
    scanf("%d",&x);
    printf("Enter y:");
    scanf("%d",&y);
    x= x+y;
    y=x-y;
    x=x-y;
    printf("x = %d\n",x);
    printf("y = %d",y);
    return 0;
}
```

Output:

```
Enter x:5
Enter y:7
x = 7
y = 5
```

Problem No: 2302056_56

Problem Name: Write a C program to shift given data by two bits to the left.

Input:

```c
#include<stdio.h>
int main()
{
    int a,b;
    printf("Enter the number: ");
    scanf("%d",&a);
    a<<=2;
    b=a;
    printf("b = %d",b);
    return 0;
}
```

Output:

```
Enter the number: 2
b = 8
```

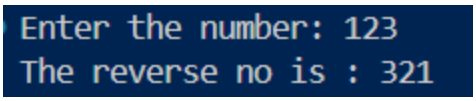
Problem No: 2302056_57

Problem Name: Write a C program to reverse and print a given number.

Input:

```c
#include<stdio.h>
int main()
{
    int x;
    int reverse = 0;
    int mod;
    printf("Enter the number: ");
    scanf("%d",&x);
    while(x>0){
        mod = x%10;
        reverse = reverse*10 + mod;
        x = x/10;
    }
    printf("The reverse no is : %d",reverse);
    return 0;
}
```

Output:



Problem No: 2302056_58

Problem Name: Write a C program that accepts 4 real numbers from the keyboard and prints out the difference between the maximum and minimum values of these four numbers.

Input:

```c
#include<stdio.h>
int main()
{
    float arr[4];
    for(int i=0; i<4; i++){
        scanf("%f",&arr[i]);
    }
    float max = arr[0];
    for(int i=0; i<4; i++){
        if(max <arr[i]){
            max = arr[i];
        }
    }
    float min = arr[0];
    for(int i=0; i<4; i++){
        if(min>arr[i]){
            min = arr[i];
        }
```

```
    }
    printf("Maximum and minimum difference: %f",max - min);
    return 0;
}
```

Output:

```
1.54 1.236 1.3625 1.002
Maximum and minimum difference: 0.538000
```

Problem No: 2302056_59

Problem Name: Write a C program to display the sum of series 1 + 1/2 + 1/3 + ……. + 1/n.

Input:

```c
#include<stdio.h>
int main()
{
    float n;
    float sum= 0;
    printf("Enter the number:");
    scanf("%f",&n);
    if(n==0){
        printf("1/0");
        return 0;
    }
    for(float i=1; i<=n; i++){
        sum = sum + (1/i);
    }
    printf("sum is  :%.2f",sum);
    return 0;
}
```

Output:

```
Enter the number:50
sum is  :4.50
```

Problem No: 2302056_60

Problem Name: Write a C program to create enumerated data types for 7 days and display their values in integer constants. Write a C program to create enumerated data types for 7 days and display their values in integer constants.

Input:

```c
#include<stdio.h>       You, yesterday • first commit

int main()
{
    enum week {Sun, Mon, Tues, Wed, Thus, Fri, Sat};
    printf("Sun = %d\n",Sun);
    printf("Mon = %d\n",Mon);
    printf("Tues = %d\n",Tues);
    printf("Wed = %d\n",Wed);
    printf("Thus = %d\n",Thus);
    printf("Fri = %d\n",Fri);
    printf("Sat = %d\n",Sat);
    return 0;
}
```

Output:

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

Problem No: 2302056_61

Problem Name: Write a C program that accepts a real number x and prints out the corresponding value of sin(1/x) using 4-decimal places.

Input:

```c
#include<stdio.h>      You, yesterday • first commit
#include<math.h>

int main()
{
    float x,value;
    printf("Enter the value: ");
    scanf("%f",&x);
    value = sin(1/x);
    printf("Value of sin(1/x): %.4f",value);
    return 0;
}
```

Output:

```
Enter the value: 5
Value of sin(1/x): 0.1987
```

```
Enter the value: 5
Value of sin(1/x): 0.1987
```

Problem No: 2302056_62

Problem Name: Write a C program that accepts a positive integer less than 500 and prints out the sum of the digits of this number. Write a C program that accepts a positive integer less than 500 and prints out the sum of the digits of this number.

Input:

```c
#include<stdio.h>

int main()
{
    int x,mod;
    int sum =0;
    printf("Enter the value: ");
    scanf("%d",&x);
    while(x>=1){
        mod = x%10;
        sum = sum+mod;        You, yesterday • first co
        x= x/10;
    }
    printf("The entered value sum is: %d",sum);
    return 0;
}
```

```c
#include<stdio.h>

int main()
{
    int x,mod;
    int sum =0;
    printf("Enter the value: ");
    scanf("%d",&x);
    while(x>=1){
        mod = x%10;
        sum = sum+mod;
        x= x/10;
    }
    printf("The entered value sum is: %d",sum);
    return 0;
}
```

Ouptut:

```
Enter the value: 341
The entered value sum is: 8
```

Problem No: 2302056_64

Problem Name: Write a C program that accepts integers from the user until a zero or a negative number, displays the number of positive values, the minimum value, the maximum value, and the average value.

Input:

```c
#include<stdio.h>      You, yesterday • first commit

int main()
{
    int x;
    float avrg;
    int positiveValu =0;
    printf("Enter values (without zero or negative): ");
    scanf("%d",&x);
    if(x<=0){
        printf("No positive value");
    }
    int maximum = x;
    int minimum = x;
    int sum = 0;
    while(x>0){
        if(maximum<x){
            maximum = x;
        }
        if(minimum>x){
```

```
20          if(minimum>x){
21              minimum = x;
22          }
23          if(x>0){
24              sum = sum+x;
25              positiveValu+=positiveValu;
26          }
27      printf("Enter values (without zero or negative): ");
28      scanf("%d",&x);
29      }
30      avrg = sum/positiveValu;
31      printf("The maximum number is: %d",maximum);
32      printf("The minimum  number is: %d",minimum);
33      printf("The positive number is: %d",positiveValu);
34      printf("The average value is: %f",avrg);
35      return 0;
36  }
```

Output:

```
Enter values (without zero or negative): 50
Enter values (without zero or negative): 60
Enter values (without zero or negative): 10
Enter values (without zero or negative): 30
Enter values (without zero or negative): 60
Enter values (without zero or negative): 10
```

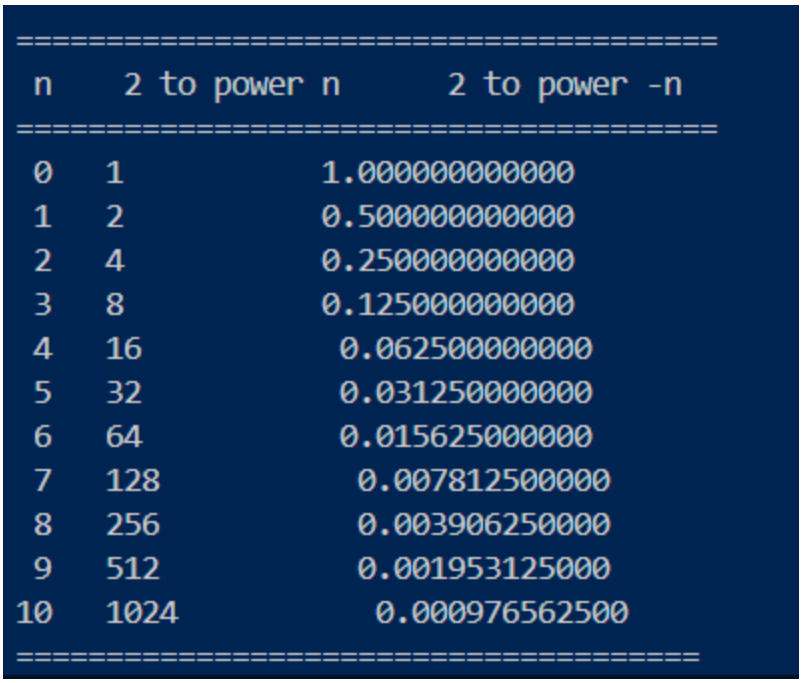
Problem No: 2302056_68

Problem Name: Write a C program that prints the powers of 2 table for the powers 0 to 10, both positive and negative.

Input:

```c
#include<stdio.h>       You, yesterday • first commit
#include<math.h>

int main()
{
    printf("\n=======================================");
    printf("\n n    2 to power n      2 to power -n");
    printf("\n=======================================");
    for(int i=0; i<=10; i++){
        float power = pow(2,i);
        float inversPower=1/power;
        printf("\n%2d   %0.f     %20.12lf", i, power, inversPower);
    }
    printf("\n=======================================");
    return 0;
}

```

Output:



```
=====================================
 n    2 to power n      2 to power -n
=====================================
 0   1            1.000000000000
 1   2            0.500000000000
 2   4            0.250000000000
 3   8            0.125000000000
 4   16            0.062500000000
 5   32            0.031250000000
 6   64            0.015625000000
 7   128            0.007812500000
 8   256            0.003906250000
 9   512            0.001953125000
10   1024            0.000976562500
=====================================
```

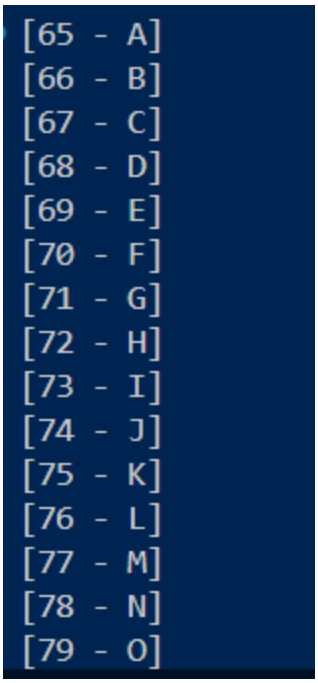
Problem No: 2302056_70

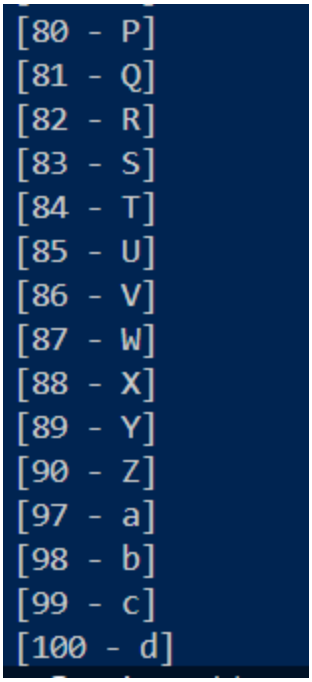
Problem Name: Write a C program to print the alphabet set in decimal and character form.

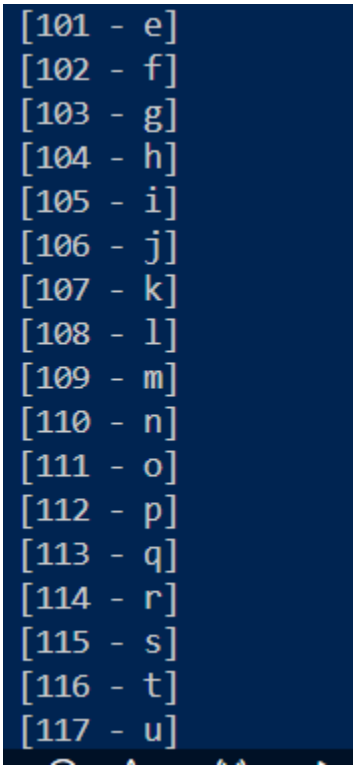
Input:

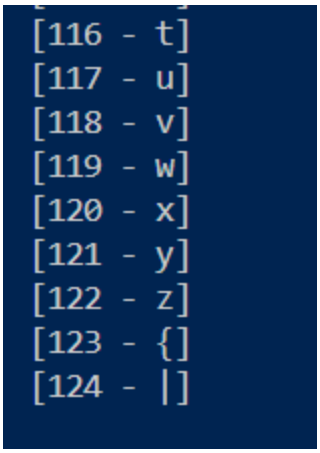
```
You, yesterday | 1 author (You)
#include<stdio.h>        You, yesterday • fi

int main()
{
    for(int i=65; i<=124; i++){
        char ch=(char)(i);
            if (i > 90 && i < 97)
      continue;
    printf("[%d - %c]\n",i,ch);
    }
    return 0;
}
```

Output:


[65 - A]
[66 - B]
[67 - C]
[68 - D]
[69 - E]
[70 - F]
[71 - G]
[72 - H]
[73 - I]
[74 - J]
[75 - K]
[76 - L]
[77 - M]
[78 - N]
[79 - O]


[80 - P]
[81 - Q]
[82 - R]
[83 - S]
[84 - T]
[85 - U]
[86 - V]
[87 - W]
[88 - X]
[89 - Y]
[90 - Z]
[97 - a]
[98 - b]
[99 - c]
[100 - d]





Problem No: 2302056_72

Problem Name: Write a C program to remove any negative sign in front of a number.

Input:

```c
#include<stdio.h>
int main()
{
    int n;
    printf("Enter the number(negative): ");
    scanf("%d",&n);
    int a =-n;
    printf("The positive no: %d",a);
    return 0;
}
```

Output:

```
Enter the number(negative): -5
The positive no: 5
```

Problem No: 2302056_73

Problem Name: Write a C program that reads two integers and checks whether the first integer is a multiple of the second integer.

Input:

```c
#include<stdio.h>       You, yesterday • first commit

int main()
{
    int x,y;
    printf("Enter the multiple number: ");
    scanf("%d",&x);
    printf("Enter the multipled number: ");
    scanf("%d",&y);
    if(x%y==0){
        printf("%d is a multiple of %d",x,y);
    } else{
        printf("%d is not a multiple of %d",x,y);
    }
    return 0;
}
```

Output:

```
Enter the multiple number: 50
Enter the multipled number: 5
50 is a multiple of 5
```

Problem No: 2302056_74

Problem Name: Write a C program to display the integer equivalents of letters (a-z, A-Z).

Input:

```c
#include<stdio.h>       You, yesterday • first commit

int main()
{
    char str[] = "abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ";
    printf("List of integer equivalents of letters (a-z, A-Z).\n");
    printf("================================================\n");
    for(int i=0; i<52; i++){
        printf("%d ",str[i]);
        if((i+1)%6==0){
            printf("\n");
        }
    }
    return 0;
}
```

Output:

```
List of integer equivalents of letters (a-z, A-Z).
================================================
97 98 99 100 101 102
103 104 105 106 107 108
109 110 111 112 113 114
115 116 117 118 119 120
121 122 65 66 67 68
69 70 71 72 73 74
75 76 77 78 79 80
81 82 83 84 85 86
87 88 89 90
```

Problem No: 2302056_75

Problem Name: Write a C program that accepts a seven-digit number, separates the number into its individual digits, and prints the digits separated from one another by two spaces each.

Input:

```c
#include<stdio.h>
int main()
{
    int x;
    int digit_space[7];
    printf("Enter the number: ");
    scanf("%d",&x);
    for(int i=6; i>=0; i--){
        digit_space[i] = x%10;
        x = x/10;
    }
    for(int i=0; i<=6; i++){
        printf("%d  ",digit_space[i]);  //%d er por twrice space ase
    }
    return 0;
}
```

Output:

```
Enter the number: 2345678
2  3  4  5  6  7  8
```

Problem No: 2302056_76

Problem Name: Write a C program to calculate and print the squares and cubes of the numbers from 0 to 20. It uses tabs to display them in a table of values.

Input:

```c
#include<stdio.h>
int main()
{
    int square,quibe;
    for(int i=1; i<=20; i++){
        square = i*i;
        quibe = i*i*i;
        printf("%d  %d  %d\n",i,square,quibe);
    }
    return 0;
}
```

Output:

```
1  1  1
2  4  8
3  9  27
4  16  64
5  25  125
6  36  216
7  49  343
8  64  512
9  81  729
```

```
10  100  1000
11  121  1331
12  144  1728
13  169  2197
14  196  2744
15  225  3375
16  256  4096
17  289  4913
18  324  5832
19  361  6859
20  400  8000
```

Problem No: 2302056_77

Problem Name: Write a C program that accepts principal amount, rate of interest and days for a loan and calculates the simple interest for the loan, using the following formula.

Input:

```c
#include<stdio.h>       You, yesterday • first commit

int main()
{
    float interest,principal,rateOfInterest,days;
    while(principal!=0){
        printf("Enter the Principal: ");
        scanf("%f",&principal);
        printf("Enter the rate of interest: ");
        scanf("%f",&rateOfInterest);
        printf("Enter the Days: ");
        scanf("%f",&days);
        interest = (principal*rateOfInterest*days)/365;
        printf("The Interest is: %f\n\n\n",interest);
    }
    return 0;
}
```

Output:

```
Enter the Principal: 1000
Enter the rate of interest: 5
Enter the Days: 12
The Interest is: 164.383560


Enter the Principal:
```

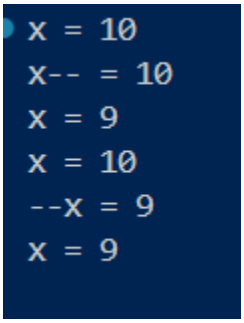
Problem No: 2302056_78

Problem Name: Write a C program to demonstrate the difference between predecrementing and postdecrementing using the decrement operator --.

Input:

```c
#include<stdio.h>
int main()
{
    int x = 10;

    printf("x = %d\n",x);
    printf("x-- = %d\n",x--);
    printf("x = %d\n",x);

    x=10;
    printf("x = %d\n",x);
    printf("--x = %d\n",--x);
    printf("x = %d\n",x);
    return 0;
}
```

Output:



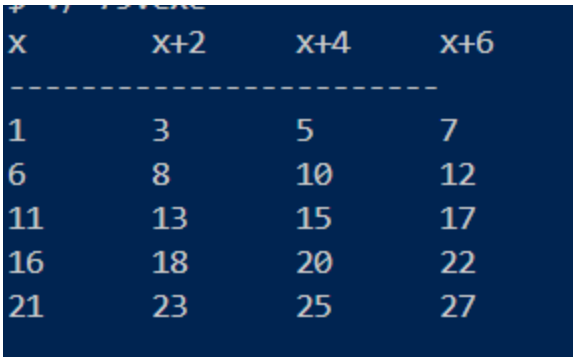
Problem No: 2302056_79

Problem Name: Write a C program using looping to produce the following table of values.

Input:

```c
#include<stdio.h>      You, yesterday • first commit

int main ()
{
    printf("x\tx+2\tx+4\tx+6\n");
    printf("-----------------------\n");
    int plus = 1;
    for(int i=1; i<=5; i++){
        for(int j=1; j<=4; j++){
            printf("%d\t",plus);
            plus += 2;
        }
        printf("\n");
        plus -= 3;
    }
    return 0;
}
```

Output:



Problem No: 2302056_80

Problem Name: Write a C program that reads the side (side sizes between 1 and 10) of a square and prints square using hash (#) character.

Problem No: 2302056_80

Problem Name: Write a C program that reads the side (side sizes between 1 and 10) of a square and prints square using hash (#) character.

Inptut:

```c
#include<stdio.h>

int main()
{
    int n;
    printf("Enter the number: ");
    scanf("%d",&n);
    for(int i=1; i<=n; i++){
        for(int j=1; j<=n; j++){
            printf("#");
        }
        printf("\n");
    }
    return 0;
}       You, yesterday • first commit
```

Output:

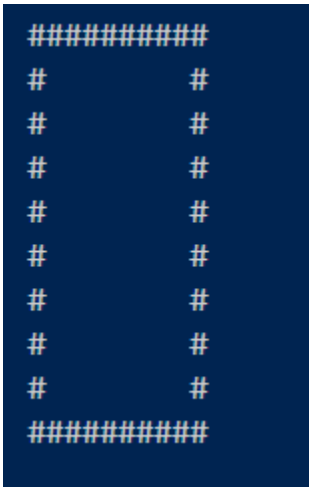
Problem No: 2302056_81

Problem Name: Write a C program that reads the side (side sizes between 1 and 10) of a square and prints a hollow square using the hash (#) character.

Input:

```c
#include<stdio.h>

int main()
{
    int n;
    printf("Ente the number: ");
    scanf("%d",&n);
    for(int i=1; i<=n; i++){
        for(int j=1; j<=n; j++){
            if(i==1 || j==1 || i==n || j==n){
                printf("#");
            } else{
                printf(" ");        You, yesterday
            }
        }
        printf("\n");
    }
    return 0;
}
```

Output:



Problem No: 2302056_82

Problem Name: Write a C program that reads a five-digit integer and determines whether or not it's a palindrome.

Input:

```c
#include<stdio.h>

int main()
{
    int number,main_number,mod_formula;
    int mathformula = 0;
    printf("Enter the 5 digit number: ");
    scanf("%d",&number);
    main_number = number;
    int reserve = number;
    while(number!=0){
        mod_formula = number%10;
        mathformula = mathformula*10 + mod_formula;
        number = number/10;
    }
    if(main_number == mathformula){
        printf("%d is a palindrom number.",reserve);
    } else{
        printf("%d is not a palindrom number.",main_number);
    }
    return 0;
```

Output:

```
Enter the 5 digit number: 12121
12121 is a palindrom number.
```

Problem No: 2302056_83

Problem Name: Write a C program that reads an integer (7 digits or fewer) and counts the number of 3s in the given number. Write a C program that reads an integer (7 digits or fewer) and counts the number of 3s in the given number.

Input:

```c
#include<stdio.h>

int main()
{
    int n,mod;
    int count = 0;
    printf("Enter the number: ");
    scanf("%d",&n);
    while(n>0){
        mod = n%10;
        if(mod==3) count++;        You, yesterday • first commit
        n /=10;
    }
    printf("The number of threes in the said number is: %d",count);
    return 0;
}
```

Output:

```
Enter the number: 53023
The number of threes in the said number is: 2
```

Problem No: 2302056_83

Problem Name: Write a C program to calculate and print the average of some integers. Accept all the values preceding 888.

Input:

```c
#include<stdio.h>

int main()
{
    int n;
    float avrg;
    int sum = 0,count = 0;
    printf("Enter the number: ");
    scanf("%d",&n);
    while(n!=888){
        sum += n;
        count++;
        printf("Enter the number: ");
        scanf("%d", &n);
    }
    if(count){
    avrg = (float)sum/count;
    }
    printf("The avarage is: %f",avrg);
    return 0;
}
```

Output:

```
Enter the number: 50
Enter the number: 10
Enter the number: 60
Enter the number: 50
Enter the number: 888
The avarage is: 42.500000
```

Problem No: 2302056_86

Problem Name: Write a C program to display the sizes and ranges for each of C's data types.

Input:

```c
#include <stdio.h>        You, yesterday • first commit
#include <stdint.h>
#include <stdbool.h>
#include <limits.h>
int main(void) {
    // Display title
    printf("Size and Range of C data types:\n\n");
    // Display column headers
    printf("%-20s %-20s %-20s\n", "Type", "Bytes", "Range");
    // Display separator line
    printf("-------------------------------------------------------\n");
    // Print size and range of various data types
    printf("%-20s %lu %-20d to %-20d\n", "char", sizeof(char), CHAR_MIN, CHAR_MAX);
    printf("%-20s %lu %-20d to %-20d\n", "int8_t", sizeof(int8_t), INT8_MIN, INT8_MAX);
    printf("%-20s %lu %-20d to %-20d\n", "unsigned char", sizeof(unsigned char), 0, UCHAR_MAX);
    printf("%-20s %lu %-20d to %-20d\n", "uint8_t", sizeof(uint8_t), 0, UINT8_MAX);
    printf("%-20s %lu %-20d to %-20d\n", "short", sizeof(short), SHRT_MIN, SHRT_MAX);
    printf("%-20s %lu %-20d to %-20d\n", "int16_t", sizeof(int16_t), INT16_MIN, INT16_MAX);
    printf("%-20s %lu %-20d to %-20d\n", "uint16_t", sizeof(uint16_t), 0, UINT16_MAX);
    printf("%-20s %lu %-20d to %-20d\n", "int", sizeof(int), INT_MIN, INT_MAX);
```

```c
    printf("%-20s %lu %-20u to %-20u\n", "unsigned", sizeof(unsigned), 0, UINT_MAX);
    printf("%-20s %lu %-20ld to %-20ld\n", "long", sizeof(long), LONG_MIN, LONG_MAX);
    printf("%-20s %lu %-20lu to %-20lu\n", "unsigned long", sizeof(unsigned long), 0, ULONG_MAX);
    printf("%-20s %lu %-20d to %-20d\n", "int32_t", sizeof(int32_t), INT32_MIN, INT32_MAX);
    printf("%-20s %lu %-20u to %-20u\n", "uint32_t", sizeof(uint32_t), 0, UINT32_MAX);
    printf("%-20s %lu %-20lld to %-20lld\n", "long long", sizeof(long long), LLONG_MIN, LLONG_MAX);
    printf("%-20s %lu %-20llu to %-20llu\n", "int64_t", sizeof(int64_t), 0LL, ULLONG_MAX);
    printf("%-20s %lu %-20lld to %-20lld\n", "int64_t", sizeof(int64_t), LLONG_MIN, LLONG_MAX);
    printf("%-20s %lu %-20llu to %-20llu\n", "uint64_t", sizeof(uint64_t), 0ULL, ULLONG_MAX);
    // Floating point types don't have well-defined "range" in the same sense as integers
    // Add a newline for better output formatting
    printf("\n");
    // Indicate successful execution of the program
    return 0;
}

```

Output:

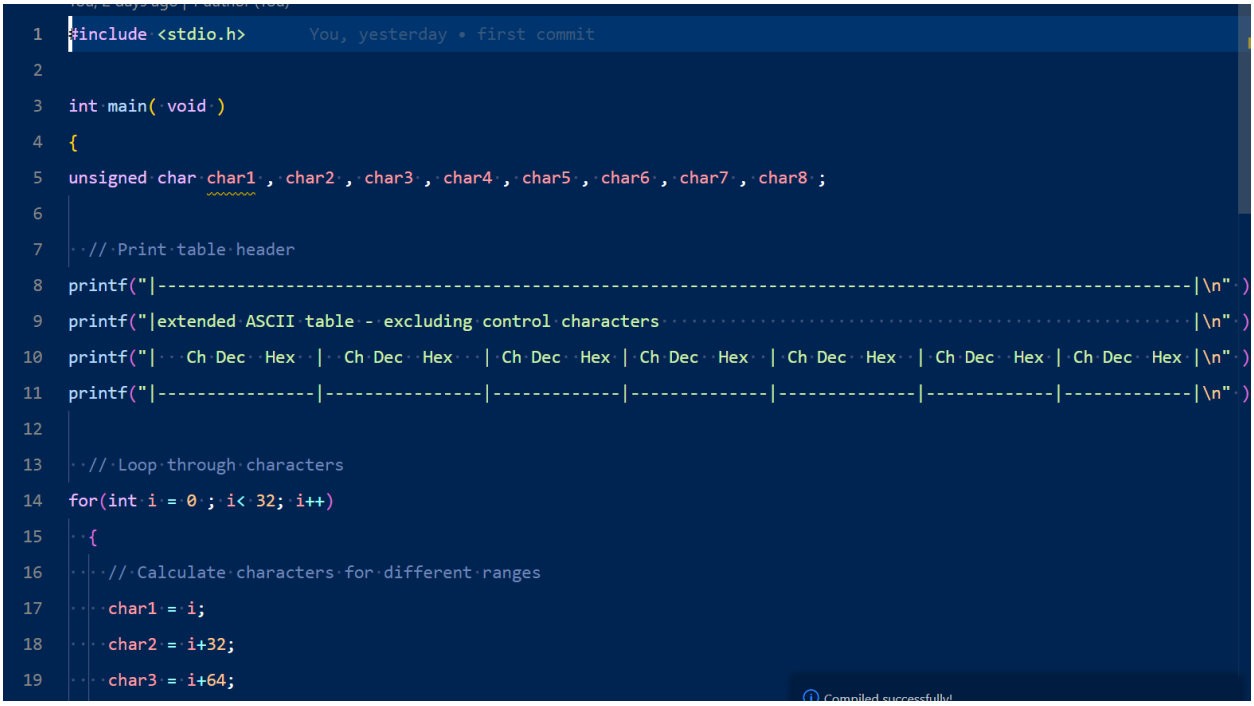
```
Size and Range of C data types:

Type                 Bytes                Range
------------------------------------------------------
char                 1 -128               to 127
int8_t               1 -128               to 127
unsigned char        1 0                  to 255
uint8_t              1 0                  to 255
short                2 -32768             to 32767
int16_t              2 -32768             to 32767
uint16_t             2 0                  to 65535
int                  4 -2147483648        to 2147483647
unsigned             4 0                  to 4294967295
long                 4 -2147483648        to 2147483647
unsigned long        4 0                  to 4294967295
```

```
unsigned          4 0                    to 4294967295
long              4 -2147483648          to 2147483647
unsigned long     4 0                    to 4294967295
int32_t           4 -2147483648          to 2147483647
uint32_t          4 0                    to 4294967295
long long         8 -9223372036854775808 to 9223372036854775807
int64_t           8 0                    to 18446744073709551615
int64_t           8 -9223372036854775808 to 9223372036854775807
uint64_t          8 0                    to 18446744073709551615
```

Problem No: 2302056_87

Problem Name: Write a C program to display the minimum and maximum values for each of C's data types.

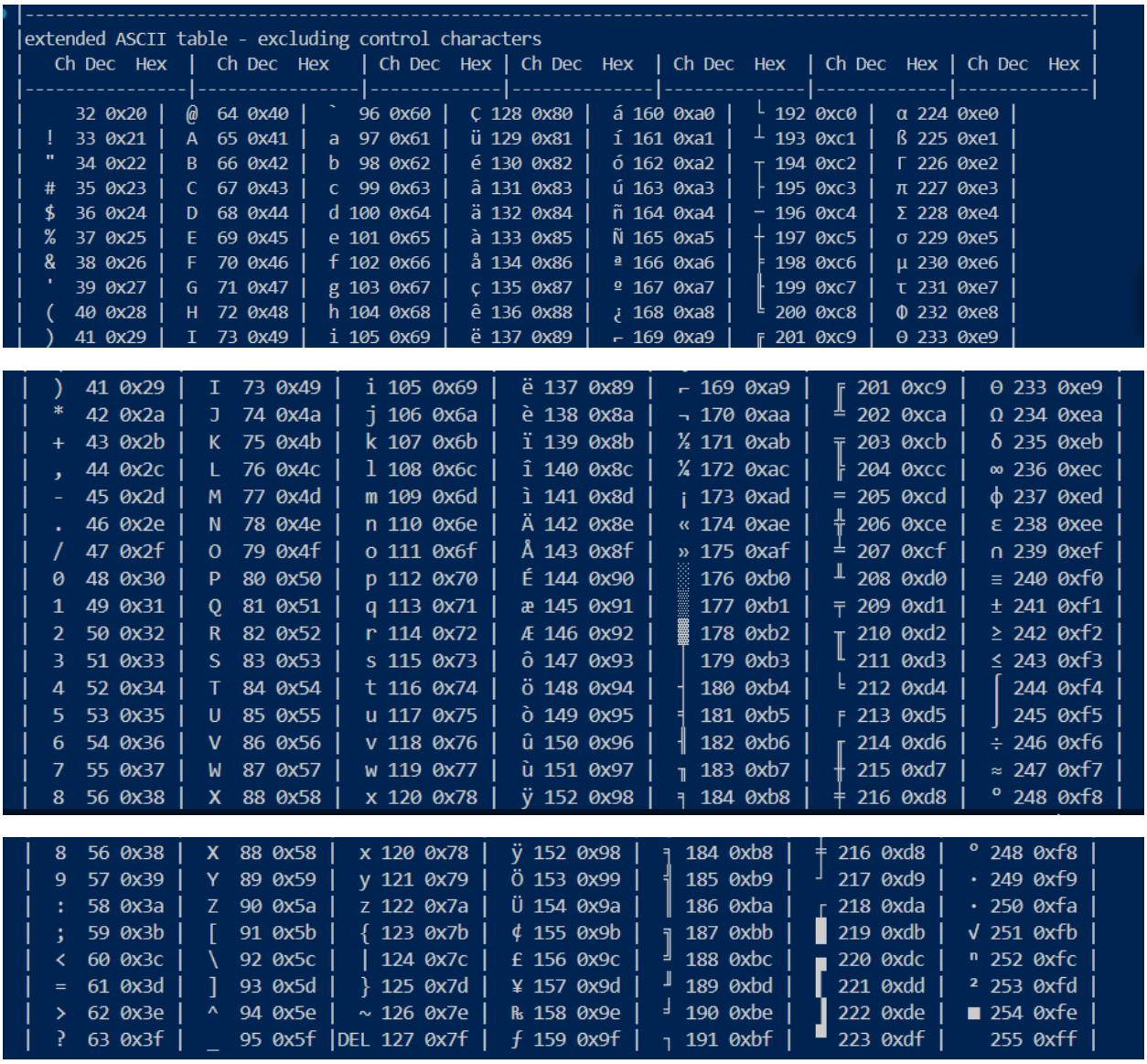
Input:



```
    char4 = i+96;
    char5 = i+128; // extended ASCII characters
    char6 = i+160;
    char7 = i+192;
    char8 = i+224;

    // Print characters and their decimal and hexadecimal representations
printf( "| %c %3d %#x ", char2, char2, char2 );
printf( "| %c %3d %#x ", char3, char3, char3 );

    // Special case for DEL character
if( char4 == 127 ) {
printf("|%s %3d %#x |", "DEL", char4, char4 );
    } else {
printf("| %c %3d %#x |", char4, char4, char4 );
    }

```

```
    // Print extended ASCII characters for current system.
  printf("  %c %3d %#x | %c %3d %#x | %c %3d %#x | %c %3d %#x |\n",
  char5, char5, char5,
  char6, char6, char6,
  char7, char7, char7,
  char8, char8, char8 );
  }

  return 0; // Indicate successful execution of the program
  }

```

Ouptut:



extended ASCII table - excluding control characters

Ch Dec Hex	Ch Dec Hex	Ch Dec Hex	Ch Dec Hex	Ch Dec Hex	Ch Dec Hex	Ch Dec Hex
32 0x20	@ 64 0x40	` 96 0x60	Ç 128 0x80	á 160 0xa0	└ 192 0xc0	α 224 0xe0
! 33 0x21	A 65 0x41	a 97 0x61	ü 129 0x81	í 161 0xa1	┴ 193 0xc1	ß 225 0xe1
" 34 0x22	B 66 0x42	b 98 0x62	é 130 0x82	ó 162 0xa2	┬ 194 0xc2	Γ 226 0xe2
# 35 0x23	C 67 0x43	c 99 0x63	â 131 0x83	ú 163 0xa3	├ 195 0xc3	π 227 0xe3
$ 36 0x24	D 68 0x44	d 100 0x64	ä 132 0x84	ñ 164 0xa4	─ 196 0xc4	Σ 228 0xe4
% 37 0x25	E 69 0x45	e 101 0x65	à 133 0x85	Ñ 165 0xa5	┼ 197 0xc5	σ 229 0xe5
& 38 0x26	F 70 0x46	f 102 0x66	å 134 0x86	ª 166 0xa6	╞ 198 0xc6	µ 230 0xe6
' 39 0x27	G 71 0x47	g 103 0x67	ç 135 0x87	º 167 0xa7	╟ 199 0xc7	τ 231 0xe7
(40 0x28	H 72 0x48	h 104 0x68	ê 136 0x88	¿ 168 0xa8	╚ 200 0xc8	Φ 232 0xe8
) 41 0x29	I 73 0x49	i 105 0x69	ë 137 0x89	⌐ 169 0xa9	╔ 201 0xc9	Θ 233 0xe9
) 41 0x29	I 73 0x49	i 105 0x69	ë 137 0x89	⌐ 169 0xa9	╔ 201 0xc9	Θ 233 0xe9
* 42 0x2a	J 74 0x4a	j 106 0x6a	è 138 0x8a	¬ 170 0xaa	╩ 202 0xca	Ω 234 0xea
+ 43 0x2b	K 75 0x4b	k 107 0x6b	ï 139 0x8b	½ 171 0xab	╦ 203 0xcb	δ 235 0xeb
, 44 0x2c	L 76 0x4c	l 108 0x6c	î 140 0x8c	¼ 172 0xac	╠ 204 0xcc	∞ 236 0xec
- 45 0x2d	M 77 0x4d	m 109 0x6d	ì 141 0x8d	¡ 173 0xad	═ 205 0xcd	ϕ 237 0xed
. 46 0x2e	N 78 0x4e	n 110 0x6e	Ä 142 0x8e	« 174 0xae	╬ 206 0xce	ε 238 0xee
/ 47 0x2f	O 79 0x4f	o 111 0x6f	Å 143 0x8f	» 175 0xaf	╧ 207 0xcf	∩ 239 0xef
0 48 0x30	P 80 0x50	p 112 0x70	É 144 0x90	░ 176 0xb0	╨ 208 0xd0	≡ 240 0xf0
1 49 0x31	Q 81 0x51	q 113 0x71	æ 145 0x91	▒ 177 0xb1	╤ 209 0xd1	± 241 0xf1
2 50 0x32	R 82 0x52	r 114 0x72	Æ 146 0x92	▓ 178 0xb2	╥ 210 0xd2	≥ 242 0xf2
3 51 0x33	S 83 0x53	s 115 0x73	ô 147 0x93	│ 179 0xb3	╙ 211 0xd3	≤ 243 0xf3
4 52 0x34	T 84 0x54	t 116 0x74	ö 148 0x94	┤ 180 0xb4	╘ 212 0xd4	⌠ 244 0xf4
5 53 0x35	U 85 0x55	u 117 0x75	ò 149 0x95	╡ 181 0xb5	╒ 213 0xd5	⌡ 245 0xf5
6 54 0x36	V 86 0x56	v 118 0x76	û 150 0x96	╢ 182 0xb6	╓ 214 0xd6	÷ 246 0xf6
7 55 0x37	W 87 0x57	w 119 0x77	ù 151 0x97	╖ 183 0xb7	╫ 215 0xd7	≈ 247 0xf7
8 56 0x38	X 88 0x58	x 120 0x78	ÿ 152 0x98	╕ 184 0xb8	╪ 216 0xd8	° 248 0xf8
8 56 0x38	X 88 0x58	x 120 0x78	ÿ 152 0x98	╕ 184 0xb8	╪ 216 0xd8	° 248 0xf8
9 57 0x39	Y 89 0x59	y 121 0x79	Ö 153 0x99	╣ 185 0xb9	┘ 217 0xd9	∙ 249 0xf9
: 58 0x3a	Z 90 0x5a	z 122 0x7a	Ü 154 0x9a	║ 186 0xba	┌ 218 0xda	· 250 0xfa
; 59 0x3b	[91 0x5b	{ 123 0x7b	¢ 155 0x9b	╗ 187 0xbb	█ 219 0xdb	√ 251 0xfb
< 60 0x3c	\ 92 0x5c	| 124 0x7c	£ 156 0x9c	╝ 188 0xbc	▄ 220 0xdc	ⁿ 252 0xfc
= 61 0x3d	] 93 0x5d	} 125 0x7d	¥ 157 0x9d	╜ 189 0xbd	▌ 221 0xdd	² 253 0xfd
> 62 0x3e	^ 94 0x5e	~ 126 0x7e	₧ 158 0x9e	╛ 190 0xbe	▐ 222 0xde	■ 254 0xfe
? 63 0x3f	_ 95 0x5f	DEL 127 0x7f	ƒ 159 0x9f	┐ 191 0xbf	▀ 223 0xdf	255 0xff

Problem No: 2302056_88

Write a C programming to calculate (x + y + z) for each pair of integers x, y and z where -2^31 <= x, y, z<= 2^31-1.

Input:

```c
#include<stdio.h>
int main()
{
    int x,y,z;
    printf("Enter x: ");
    scanf("%d",&x);
    printf("Enter y: ");
    scanf("%d",&y);
    printf("Enter z: ");
    scanf("%d",&z);
    int result = x+y+z;
    printf("Result is: %d",result);
    return 0;
}
```

Output:

```
Enter x: 5
Enter y: 7
Enter z: 3
Result is: 15
```

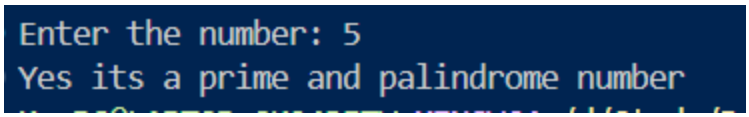
Problem No: 2302056_90

Problem Name: Write a C program to find all prime palindromes in the range of two given numbers x and y (5 <= x<y<= 1000,000,000).

Input:

```c
#include<stdio.h>       You, 2 days ago • first commit

int main()
{
    int n,main_number,mod;
    int reverse = 0;
    printf("Enter the number: ");
    scanf("%d",&n);
    main_number = n;
    for(int i=2;i<n;i++){
        if(n%i!=0){
            while(n>0){
                mod = n%10;
                reverse = reverse*0 + mod;
                n = n/10;
            }
            if(reverse == main_number){
                printf("Yes its a prime and palindrome number");
            } else{
                printf("No,Its not a prime or palindrome number");
            }
        }
    }
    return 0;
}
```

Output:

z 

Problem No: 2302056_91

Problem Name: Write a C program to find the angle between (12:00 to 11:59) the hour hand and the minute hand of a clock. The hour hand and the minute hand are always between 0 and 180 degrees.

Input:

```c
#include<stdio.h>       You, 2 days ago • first commit

int main()
{
    float law,main_law,running_angle;
    int h,m;
    printf("Enter Hour and minuter by space: ");
    scanf("%d%d",&h,&m);
    law = ((60*h)-(11*m))/2;
    running_angle = (m%5)/12;
    main_law = law - running_angle;
    if(law<0){
        main_law = -main_law;
    } else{
            main_law = main_law;
    }
    if(main_law>180){
            main_law = 360-main_law;
    }
    printf("The angle is: %f",main_law);
    return 0;
}
```

Output:

```
Enter Hour and minuter by space: 10
16
The angle is: 148.000000
```

Problem No: 230056_92

Problem Name: Write a C program to find the last non-zero digit of the factorial of a given positive integer.

Input:

```c
#include<stdio.h>       You, 2 days ago • first commit

int main()
{
    int n,mod;
    int cutting = 0;
    int multi = 1;
    printf("Enter the number: ");
    scanf("%d",&n);
    for(int i=1; i<=n; i++){
        multi = multi*i;
    }
    while(multi>0){
        mod = multi%10;
        if(mod != 0){
            printf("The numbe is: %d",mod);
            break;
        }
        cutting = cutting *10 + mod;
        multi = multi/10;
    }
}
```

Output:

```
Enter the number: 5
The numbe is: 2
```

```
Enter the number: 5
The numbe is: 2
```

Problem No: 2302056_94

Problem Name: Write a C program to calculate body mass index and display the grade.

Problem No: 2302056_95

Problem Name: Write a C program to print the corresponding Fahrenheit to Celsius and Celsius to Fahrenheit.

Input:

```c
#include<stdio.h>       You, 2 days ago • first commit

float formula_frnhght(float f){
    float farenhieght = ((f-32)*5)/9;
    return farenhieght;
}

float formula_celcius(float C){
    float celcius = ((9*C)/32)+32;
    return celcius;
}

int main()
{
    printf("Fahrenheit to Celsius");
    printf("\n------------------
    printf("Fahrenheit  Celsius\n");
    for(float i=0; i<=150; i+=10){
        float farenhieght = formula_frnhght(i);
        printf("%.0f\t%.2f\n",i,farenhieght);
```

(char [21])"Fahrenheit Celsius\n"

```
        float farenhieght = formula_frnhght(i);
        printf("%.0f\t%.2f\n",i,farenhieght);
    }
    printf("\n\nCelsius to Fahrenheit\n");
    printf("--------------------\n");
    printf("Celsius   Fahrenheit\n");
    for(float i=0; i<=150; i+=10){
        float celsius = formula_celcius(i);
        printf("%.0f\t%.2f\n",i,celsius);
    }
    return 0;
}
```

Output:

```
Fahrenheit to Celsius
--------------------
Fahrenheit  Celsius
0       -17.78
10      -12.22
20      -6.67
30      -1.11
40      4.44
50      10.00
60      15.56
70      21.11
80      26.67
90      32.22
100     37.78
110     43.33
120     48.89
```

```
130     54.44
140     60.00
150     65.56


Celsius to Fahrenheit
---------------------
Celsius   Fahrenheit
0       32.00
10      34.81
20      37.63
30      40.44
40      43.25
50      46.06
```

```
60      48.88
70      51.69
80      54.50
90      57.31
100     60.13
110     62.94
120     65.75
130     68.56
140     71.38
150     74.19
```

Problem No: 2302056_96

Problem Name: Write a C program to count blanks, tabs, and newlines in input text.

Input:

```c
#include<stdio.h>
int main()
{
    int c;
    int blank = 0;
    int tab =0;
    int newline = 0;
    printf("Number of blanks, tabs, and newlines:\n");
    printf("Input few words/tab/newlines\n");
    for(; (c = getchar()) != EOF;){
        if(c == ' ') blank++;
        if(c == '\t') tab++;
        if(c == '\n') newline++;
    }
    printf("blank=%d,tab=%d,newline=%d\n", blank, tab, newline);
    return 0;
}
```

```c
#include<stdio.h>
int main()
{
    int c;
    int blank = 0;
    int tab =0;
    int newline = 0;
    printf("Number of blanks, tabs, and newlines:\n");
    printf("Input few words/tab/newlines\n");
    for(; (c = getchar()) != EOF;){
        if(c == ' ') blank++;
        if(c == '\t') tab++;
        if(c == '\n') newline++;
    }
    printf("blank=%d,tab=%d,newline=%d\n", blank, tab, newline);
    return 0;
}
```

Output:

```
Number of blanks, tabs, and newlines:
Input few words/tab/newlines
sakhsk
slfls
lajlaj
^Z
blank=0,tab=0,newline=3
```

Problem No: 2302056_98

Problem Name: Write a C program that takes some integer values from the user and prints a histogram.

Input:

```c
#include<stdio.h>       You, 2 days ago • first c

int main()
{
    int n;
        printf("Enter the number: ");
    scanf("%d",&n);
    int arr[n];
    int a = n-1;
    for(int i=0; i<arr[a]; i++){
        scanf("%d",&arr[i]);
    }
    printf("Number: ");
    for(int i=1; i<arr[a]; i++){
        printf("#");
    }
    printf("\n");
    return 0;
}
```

Outptut:

Problem No: 2302056_100

Problem Name: Write a C program to convert a currency value (floating point with two decimal places) to the number of coins and notes.

Input:

```c
#include<stdio.h>       You, 2 days ago • first commit

int main()
{
    float money;
    int total;
    printf("Enter the amount :");
    scanf("%f",&money);
    printf("There are,\n");
    float coin_money = money - (int)money;  //coin(float) type mon
    int amount = (int)money;

    //For 100.00 tk note,
    if(amount>=100){
    total = (int)amount/100;
    printf("%d note(s) of 100.00\n",total);
    amount = amount-(total*100);
    }

    //For 50.00 tk note,
```

```
    if(amount>=50){
    total = (int)amount/50;
    printf("%d note(s) of 50.00\n",total);
    amount = amount-(total*50);
    }

    // For 20.00 tk note,
    if(amount>20){
    total = (int)amount/20;
    printf("%d notes of 20.00\n",total);
    amount = amount-(total*20);
    }

    // For 10.00 tk note,
    if(amount>10){
    total = (int)amount/10;
    printf("%d note(s) of 10.00\n",total);
    amount = amount-(total*0);
```

```
    }
    // For 5.00 tk note,
    if(amount>5){
    total = (int)amount/5;
    printf("%d notes of 5.00\n",total);
    amount = amount-(total*5);
    }
    // For 2.00 tk note,
    if(amount>2){
    total = (int)amount/2;
    printf("%d note(s) of 2.00\n",total);
    amount = amount-(total*2);
    }
    // For 1.00 tk note,
    if(amount>1){
    total = (int)amount/1;
    printf("%d note(s) of 1.00\n",total);
    }
```

```
    total = (int)amount/2;
    printf("%d note(s) of 2.00\n",total);
    amount = amount-(total*2);
    }
    // For 1.00 tk note,
    if(amount>1){
    total = (int)amount/1;
    printf("%d note(s) of 1.00\n",total);
    }
    coin_money==0.75 ? printf("1 coin(s) of 0.50\n1 coin(s) of 0.25\n") : coin_money ==0.50 ? printf("1 coin(s) of 0.
    50\n") : coin_money == 0.25 ? printf("1 coin(s) of 0.25\n") : printf("No coin money");

    return 0;
    }
```

Output:

```
Enter the amount :675.75
There are,
6 note(s) of 100.00
1 note(s) of 50.00
1 notes of 20.00
2 note(s) of 2.00
1 coin(s) of 0.50
1 coin(s) of 0.25
```