

1) Print the First 3 multiples of the given number "N";. (N is a positive integer)

Note: print the characters with a single space between them.

Input Description:

A positive integer is provided to you as an input.

Output Description:

Print the First 3 multiples of the number with single spaces between them as an output.

Sample Input :

7

Sample Output :

7 14 21

solution:

```
#include<stdio.h>
int main(){
    int n;
    printf("enter the number:");
    scanf("%d",&n);
    for(int i=1;i<=3;i++){
        printf("%d ",i*n);
    }
    return 0;
}
```


#####

2)

Given integer array with size M , containing odd and even numbers
.Separate the even
numbers and store in 1D arrays.

Test Case

M: 6

8 1 5 10 12 9

Even Numbers in the array :8 10 12

solution:

```
#include<stdio.h>
int main(){
    int m,arr1[10],res_arr[10];
    printf("enter arr elements m:");
    scanf("%d",&m);
    for(int i=0;i<m;i++){
        scanf("%d",&arr1[i]);
    }

    for(int i=0;i<m;i++){
```

```

        if(arr1[i]%2==0){
            res_arr[i]=arr1[i];
            printf("%d ",res_arr[i]);
        }
    }
}

```

```

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```

A ecommerce website is announcing offer for the students who are eligible to vote and whose age is a multiple of 7. Get age from the user and print "YES" if the student is eligible for offer and "NO" if the student is not eligible for offer

Sample Input:

42

Sample Output:

YES

solution:

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

```
int main()
```

```
{
```

```

    int n;
    printf("enter the num:");
    scanf("%d",&n);

```

```

    if(n%7==0){
        printf("YES");
    }
    else{
        printf("No");
    }
    return 0;

```

```
}
```

```

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```

Given an array of size 10, find and print the number of even numbers in the given array

Sample Input:

2 1 5 3 4 6 7 8 9 10

Sample Output:

5

solution:

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

```

int main()
{
    int arr[10],count=0;
    int n=sizeof(arr)/sizeof(arr[0]);
    for(int i=0;i<n;i++){
        scanf("%d",&arr[i]);
    }
    for(int i=0;i<n;i++){
        if(arr[i]%2==0){
            count++;
        }
    }

    printf("%d",count);
    return 0;
}

```


#####

write a C program to find whether the given number is GOOD number. A number whose digits is 5 is called a GOOD number. Print "YES" if the number is best number and print "NO" otherwise

Sample Input:

3333

Sample Output:

NO

Sample Input:

33333

sample Output:

YES

solution:

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

```
int main()
```

```
{
```

```

    int n,count=0;
    printf("enter the num:");
    scanf("%d",&n);

```

```

    while(n!='\0'){
        count++;
        n=n/10;
    }

```

```

    printf("%d\n",count);
    if(count==5){
        printf("GOOD Number");
    }
}

```

```

    }
    else{
        printf("Not GOOD Number");
    }
    return 0;
}

```

```

#####
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```

Given an array of length 10, write a program to sort the given array in ascending order

Sample Input:

1 5 6 4 3 2 7 9 8 10

Sample Output:

1 2 3 4 5 6 7 8 9 10

solution:

```

#include<stdio.h>
int main(){
    int element[10],i,j,temp;
    printf("enter 10 integer numbers:");
    for(i=0;i<10;i++){
        scanf("%d",&element[i]);
    }
    for(i=0;i<10-1;i++){
        for(j=i+1;j<10;j++){
            if(element[i]>element[j]){
                temp=element[i]; //swapping element[i] with element[j]
                element[i]=element[j];
                element[j]=temp;
            }
        }
    }
    printf("Elements are now in ascending order:");
    for(i=0;i<10;i++)
        printf("%d",element[i]);
    return 0;
}

```

Get 10 numbers from user and print the difference between largest even number and smallest odd number in given elements

solution:

```

#include<stdio.h>
int main(){
    int
arr[]={3,7,9,10,18,30,11,24,48,54,68,12,16,4,18,60,32,33,17,29},curr=0,curr1=0;

    int n =sizeof(arr)/sizeof(arr[0]);

    for(int i=0;i<n;i++){
        if(arr[i]%2==0 && arr[i]>curr){
            curr=arr[i];
        }
    }

    for(int i=0;i<n;i++){
        if(arr[i]%2!=0 && arr[i]>curr1){
            curr1=arr[i];
        }
    }

    printf("%d %d diff=%d",curr,curr1,curr-curr1);
    return 0;
}

```

```

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```

Write a program to find whether the given number is a prime number and if it is a prime number print the sum of its digits.

solution:

```

#include <stdio.h>

int main() {

    int n, i, flag = 0,sum=0,rem;
    printf("Enter a positive integer: ");
    scanf("%d", &n);

    // 0 and 1 are not prime numbers
    // change flag to 1 for non-prime number
    if (n == 0 || n == 1)
        flag = 1;

    for (i = 2; i <= n / 2; ++i) {

        // if n is divisible by i, then n is not prime
    }
}

```

```

        // change flag to 1 for non-prime number
        if (n % i == 0) {
            flag = 1;
            break;
        }
    }

    // flag is 0 for prime numbers
    if (flag == 0){
        printf("%d is a prime number.", n);
        while(n!=0){
            rem= n%10;
            sum=sum+rem;
            n=n/10;
        }
        printf("sum of digits:%d",sum);
    }
    else{
        printf("%d is not a prime number.", n);
    }
    return 0;
}

#####
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```

Write a program to print the factors and factorial of a given number

solution:

```

#include <stdio.h>

int main()
{
    int n,fact=1;
    printf("row:");
    scanf("%d",&n);
    printf("factors:");
    for(int i=1;i<=n;i++){

        if(n%i==0){
            printf("%d ",i);
        }
    }

    //factorial

    for(int i=1;i<=n;i++){

        fact=fact*i;
    }
}

```

```

    }
    printf("\nfactorials:%d\n",fact);
    return 0;
}

```

```

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```

C Conditional Statement:

programs:

Write a program in C to calculate and print the electricity bill of a given customer. The customer ID, name, and unit consumed by the user should be captured from the keyboard to display the total amount to be paid to the customer.

The charge are as follow :

```

Unit Charge/unit
upto 199      @1.20
200 and above but less than 400    @1.50
400 and above but less than 600    @1.80
600 and above      @2.00
If bill exceeds Rs. 400 then a surcharge of 15% will be charged and the
minimum bill should be of Rs. 100/-

```

solution

```

#include <stdio.h> // Include the standard input/output header file.
#include <string.h> // Include the string header file.

```

```

void main()
{
    int custid, conu; // Declare variables to store customer ID and
consumed units.
    float chg, surchg = 0, gramt, netamt; // Declare variables for
charge, surcharge, gross amount, and net amount.
    char connm[25]; // Declare a character array to store customer name.

    printf("Input Customer ID :"); // Prompt user for input of customer
ID.
    scanf("%d", &custid); // Read and store the customer ID.
    printf("Input the name of the customer :"); // Prompt user for input
of customer name.
    scanf("%s", connm); // Read and store the customer name.
    printf("Input the unit consumed by the customer : "); // Prompt user
for input of consumed units.
    scanf("%d", &conu); // Read and store the consumed units.

```

```

if (conu < 200)
    chg = 1.20; // Set charge based on consumed units.
else if (conu >= 200 && conu < 400)
    chg = 1.50; // Set charge based on consumed units.
else if (conu >= 400 && conu < 600)
    chg = 1.80; // Set charge based on consumed units.
else
    chg = 2.00; // Set charge based on consumed units.

gramt = conu * chg; // Calculate gross amount.

if (gramt > 300)
    surchg = gramt * 15 / 100.0; // Calculate surcharge if gross
amount is greater than 300.

netamt = gramt + surchg; // Calculate net amount.

if (netamt < 100)
    netamt = 100; // Set minimum net amount to 100.

printf("\nElectricity Bill\n");
printf("Customer IDNO                :%d\n", custid);
printf("Customer Name                  :%s\n", connm);
printf("unit Consumed                   :%d\n", conu);
printf("Amount Charges @Rs. %4.2f per unit :%8.2f\n", chg, gramt);
printf("Surchage Amount                   :%8.2f\n", surchg);
printf("Net Amount Paid By the Customer    :%8.2f\n", netamt);
}

```