

1)

```
#include <iostream>
using namespace std;
int main() {
    int n,count=0;
    cout<<"enter the number :-";
    cin>>n;
    for(int i=1;i<=n;i++)
    {
        if(n%i==0)
        {
            count=count+1;
        }
    }
    if(count==2)
    {
        cout<<"prime number";
    }
    else{
        cout<<"composite number";
    }
    return 0;
}
```

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2)

```
#include<iostream>
using namespace std;
int main() {
    int count=0,no_of_primes,n;
    cout<<"enter the number :-";
    cin>>n;
    if(n==1)
    {
        cout<<"neither prime or composite number";
    }
    else{
        for(int i=2;i<=n;i++)
        {
            for(int j=2;j<i;j++)
            {
                if(i%j==0) count=count+1;
            }
            if(count==0)
            {
                cout<< i<<" ";
                no_of_primes++;
            }
            count=0;
        }
    }
    cout<<" \nno of primes :- "<<no_of_primes;
    return 0;
}
```

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3)

```
#include <iostream>
using namespace std;
int main()
```

```

{
    int n;
    cout<<"enter the size:- ";
    cin>>n;
    for(int r=1;r<=n;r++)
    {
        char ch='A';
        for(int c=1;c<=r;c++)
        {
            cout<<ch++<<" ";
        }
        ch='A';
        cout<<"\n";
    }
}

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4)
#include <iostream>
using namespace std;
int main()
{
    abc:
    int num1,num2,x,num;
    float y;
    cout<<"1.Add\n"<<"2.Sub\n"<<"3.Mul\n"<<"4.Div\n"<<"5.Exit\n";
    cout<<"enter the option :- ";
    cin>>num;
    if(num<=4)
    {
        cout<<"enter first number :- ";
        cin>>num1;
        cout<<"enter second number :- ";
        cin>>num2;
        switch (num)
        {
            case 1:x=num1+num2;
            cout<<"Addition is :- "<<x<<"\n";
            break;
            case 2:x=num1-num2;
            cout<<"subtraction is  :- "<<x<<"\n";
            break;
            case 3:x=num1*num2;
            cout<<"multiplication is :- "<<x<<"\n";
            break;
            case 4:y=num1/num2;
            cout<<"division is :- "<<y<<"\n";
            break;
        }
        goto abc;
    }
    else{
        printf("successfully exited");
    }
}

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5)

#include <iostream>
using namespace std;

```

```
int main()
{
    int n;
    cout<<"enter the size:- ";
    cin>>n;
    for(int r=1;r<=n;r++)
    {
        int i=1;
        for(int c=1;c<=r;c++)
        {
            cout<<i++<<" ";
        }
        i=1;
        cout<<"\n";
    }
}
```

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