

BT1:

```
#include <iostream>
```

```
using namespace std;
```

```
void drawHCN(int n, int m){  
    for (int i = 0; i < m; i++)  
    {  
        if (i == 0 || i == m-1)  
            for(int j = 0; j < n; j++)  
                cout<<"*";  
        else  
        {  
            for(int j = 0; j < n; j++)  
                if (j == 0 || j == n-1)  
                    cout<<"*";  
                else  
                    cout<<" ";  
        }  
        cout<<endl;  
    }  
}
```

```
void drawTamGiac(int n){  
    for (int i = 0; i < n; i++){  
        for (int j = 0; j <= i; j++)  
            cout<<"*";  
        cout<<endl;  
    }  
}
```

```
int main() {  
    int n,m;  
    cout<<"A. N: "; cin>>n;  
    cout<<"M: "; cin>>m;  
    drawHCN(n,m);  
  
    cout<<"B. N:"; cin>>n;  
    drawTamGiac(n);  
}
```

BT2: (ĐỆ QUY)

```
#include <iostream>
```

```
using namespace std;
```

```
void mainProb(int n)
{
    if (n == 1)
        cout<<n;
    else
    {
        cout<<n<<" ";
        if (n % 2 == 0)
            mainProb(n/2);
        else
            mainProb(n*3+1);
    }
}
```

```
int main() {
    int n;
    cout<<"N: "; cin>>n;
    mainProb(n);
}
```

(KHÔNG ĐỆ QUY)

```
#include <iostream>
```

```
using namespace std;
```

```
void mainProb(int n)
{
    while (n != 1)
    {
        cout<<n<<" ";
        if (n % 2 == 0)
            n /= 2;
        else
            n = n*3 + 1;
    }
    cout<<n;
```

```
}
```

```
int main() {  
    int n;  
    cout<<"N: "; cin>>n;  
    mainProb(n);  
}
```

BT3:

```
#include <iostream>  
#include <cmath>
```

```
using namespace std;
```

```
bool checkNguyenTo(int n)  
{  
    for (int i = 2; i <= sqrt(n); i++)  
        if (n % i == 0)  
            return false;  
    return true;  
}
```

```
void mainProb(int n, int a[], int k)  
{  
    while (n != 1)  
    {  
        for (int i = n; i > 0; i--)  
            if (n % i == 0 && checkNguyenTo(i))  
            {  
                a[k++] = i;  
                n = n/i;  
                break;  
            }  
    }  
    for(int i = k; i >= 0; i--)  
        if(i == k)  
            cout<<"1*";  
        else if(i == 0)  
            cout<<a[i];  
        else  
            cout<<a[i]<<"*";  
}
```

BT4-A:

```
#include <iostream>
```

```
using namespace std;
```

```
bool checkNguyenTo(int n)
{
    for (int i = 2; i <= sqrt(n); i++)
        if (n % i == 0)
            return false;
    return true;
}
```

```
int main() {
    int n,m,a[100][100];
    cout<<"N: "; cin>>n;
    cout<<"M: "; cin>>m;
    for(int i = 0; i < n; i++)
        for(int j = 0; j < m; j++)
        {
            cout<<"A["<<i<<" "<<j<<"]": "; cin>>a[i][j];
        }
    int c = 0;
    for (int i = 0; i < n; i++)
    {
        if (i == 0 || i == m-1)
            for(int j = 1; j < m-1; j++)
                if (checkNguyenTo(a[i][j]))
                    c++;
        if(checkNguyenTo(a[i][0]))
            c++;
        if(checkNguyenTo(a[i][m]))
            c++;
    }
    cout<<c;
}
```

```
int main() {
    int n,a[100],k=0;
    cout<<"N: "; cin>>n;
    mainProb(n,a,k);
}
```

}

BT4: