

Temă pentru acasă. Tipuri fundamentale

A) Fiecare dintre programele următoare intră la rulare în buclă infinită. De ce?

Programul A1.

```
#include<iostream>
using namespace std;
int main(void){
    char i=100, max=10;
    int imax=i*max;
    for(i=0;i<imax;i++){
        cout<<'*';
    }
    return 0;
}
```

Programul A2.

```
#include<iostream>
using namespace std;
int main(void){
    int i;
    double imax=1000;
    double di, dimax;
    di=0;
    dimax=3*imax*imax*imax;
    for(i=0; di<dimax;i++){
        cout<<'*';
        di=3*i*i*i;
    }
    return 0;
}
```

Programul A3.

```
#include<iostream>
using namespace std;

int main(void){
    int i;
    for(i=0;i<1000;i++){
        if(i%3) cout<<'*';
    }
    return 0;
}
```

Programul A4.

```
#include<iostream>
using namespace std;
int main(void){
    unsigned int i;
    for(i=100;i>=0;i--){
        cout<<'*';
    }
    return 0;
}
```

Programul A5.

```
#include<iostream>
using namespace std;
int main(void){
    int i;
    unsigned short j;
    for(i=10; i>=-10; i--){
        cout<<'*';
        j=i;
        i=j;
    }
    return 0;
}
```

Programul A6.

```
#include<iostream>
using namespace std;
int main(void){
    short i;
    unsigned short j;
    for(i=10; i>=-10; i--){
        cout<<'*';
        j=i;
        if(j!=i) i++;
    }
    return 0;
}
```

B) In toate exemplele de mai jos pe monitor apare afișat mesajul "NU". De ce?

Programul B1.

```
#include<iostream>
using namespace std;
int main(void){
    double x;
    x=123456789.0123456789;
    if(x==x*x/x) cout<<"DA";
    else cout<<"NU"<<endl;
    return 0;
}
```

Programul B2.

```
#include<iostream>
using namespace std;
int main(void){
    int n=1000;
    if(1.0*n*n*n*n==n*n*n*n)
        cout<<"DA";
    else
        cout<<"NU"<<endl;
    return 0;
}
```

Programul B3.

```
#include<iostream>
using namespace std;
int main(void){
    short i=-1;
    unsigned short j=i;
    if(j==i) cout<<"DA";
    else cout<<"NU"<<endl;
    return 0;
}
```

Programul B4.

```
#include<iostream>
using namespace std;

int main(void){
    short int i=1000;
    short int j=i*i;
    if(j==i*i) cout<<"DA";
    else cout<<"NU"<<endl;
    return 0;
}
```