



## 26<sup>ος</sup> ΠΑΝΕΛΛΗΝΙΟΣ ΔΙΑΓΩΝΙΣΜΟΣ ΠΛΗΡΟΦΟΡΙΚΗΣ

### ΕΝΔΕΙΚΤΙΚΕΣ ΑΠΑΝΤΗΣΕΙΣ Α΄ ΦΑΣΗΣ

#### PASCAL

Παναγιωτίδης Ιωάννης

Πειραματικό Γ/σιο Αγίων Αναργύρων

```
program diagonismos;
var
  iddomes,outdomes:Text;
  i,N,M,elfor,f1,f2:longint ;
  foreis:array [1..100000] of byte ;
begin
  assign (iddomes, 'domes.in' ) ;
  reset (iddomes);
  readln (iddomes, N,M);

  writeln(N,' ',M);

  elfor := N;
  for i := 1 to N do
    foreis[i] := 0 ;

  for i := 1 to M do
  begin
    readln (iddomes, f1,f2);
    if foreis[f1] < 2 then
    begin
      foreis[f1] := foreis[f1] +1 ;
      if foreis[f1] = 2 then
        elfor := elfor -1 ;
      end ;
      if foreis[f2] < 2 then
      begin
        foreis[f2] := foreis[f2] +1 ;
        if foreis[f2] = 2 then
          elfor := elfor - 1 ;
        end ;
      end;
    assign (outdomes, 'domes.out' ) ;
    rewrite (outdomes) ;
    writeln (outdomes,elfor);
    close (iddomes) ;
    close (outdomes) ;
  end.
```

#### C++

Σελίδα 1 από 5

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☎ +30-210-3300999, 📠 +30-210-3301893 E-mail: [epy@epy.gr](mailto:epy@epy.gr), Web: [www.epy.gr](http://www.epy.gr)

37 Χρόνια **ΕΠΥ 1977 - 2014**



**Κεπετσιδης Ραφαήλ**

Ιδ. ΓΕΛ Εκπαιδευτηρίων Μαντουλίδη

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

using namespace std;

#ifdef _WIN32
inline int getchar_unlocked() { return getchar(); }
#endif

#define MAXN 1000005

inline int ReadInt()
{
    int c=getchar_unlocked();
    int out=0;

    while(c=='\n' || c==' ')
        c=getchar_unlocked();

    while(c!='\n' && c!=' ' && c!=-1)
    {
        out*=10;
        out+=(c-'0');
        c=getchar_unlocked();
    }

    return out;
}

inline void PrintInt(int now)
{
    FILE*write=fopen("domes.out","wt");
    fprintf(write,"%d\n",now);
    fclose(write);
}

int main()
{
    freopen("domes.in","rt",stdin);
    int N=ReadInt(),M=ReadInt(),from,to,correct=0,a[MAXN];

    memset(a,0,sizeof(int)*(N+5));

    for(int i=0;i<M;++i)
    {
        from=ReadInt();
        to=ReadInt();
        if(from!=to)
        {
```

Σελίδα 2 από 5



```
    ++a[to];  
    ++a[from];  
}  
if(a[from]==2)  
    ++correct;  
if(a[to]==2 && from!=to)  
    ++correct;  
}  
  
fclose(stdin);  
PrintInt(N-correct);  
}
```

### C

ΓΕΛ Αγίας Βαρβάρας Ηρακλείου

### Παπαδάκης Ιωάννης

```
#include<stdio.h>  
#include<stdlib.h>  
#include<string.h>  
  
int main()  
{  
    FILE *fl;  
    fl = fopen("domes.in","rb");  
    freopen("domes.out","w",stdout);  
  
    int n,m;  
    int memorybuffer = 41943040; //40 MB  
  
    fseek(fl,0,SEEK_END);  
    long filesize = ftell(fl); //bytes  
    fseek(fl,0,SEEK_SET);  
    int looptimes;  
  
    fscanf(fl,"%d%d",&n,&m);  
    char *domes = (char *)calloc(n+1,sizeof(char));  
  
    char *buffer, *start;  
    int output = 0;  
    int i = 0;  
    char cn;  
    int num1;  
    int pos =0;  
  
    if(filesize > memorybuffer)  
    {  
        if(filesize%memorybuffer != 0){  
            looptimes = (int) (filesize/memorybuffer) + 1;  
        }else{
```

Σελίδα 3 από 5



```
        looptimes = (int) (filesize/memorybuffer);
    }
} else{
    looptimes = 1;
    memorybuffer = filesize;
}

for(i = 0; i < looptimes;i++)
{
    pos = ftell(fl);
    while(1)
    {
        fseek(fl,pos+memorybuffer,SEEK_SET);
        cn = fgetc(fl);
        if(cn == '\n' || cn == ' ' || pos+memorybuffer >= filesize){
            fseek(fl,pos,SEEK_SET);
            break;
        } else{
            memorybuffer++;
        }
    }
} /*Edo 8a doume posi mnimi 8a paroume gia na spasoume to arxio se katalili
8esi*/

buffer = (char *) malloc(memorybuffer*sizeof(char));
fread(buffer,sizeof(char),memorybuffer,fl);
start = buffer;

while(num1 = strtol(start,&start,10))
{
    if(*(domes+num1-1) < 2){
        *(domes+num1-1)+=1;
    }
}
free(buffer);
}

for(i = 0;i < n;i++)
{
    if(*(domes+i) < 2)
        output++;
}

printf("%d",output);

return 0;
}
```



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