

Окружно такмичење из програмирања за ученике основних школа

24. март 2012

II категорија (7. и 8. разред)

Програмски језик PASCAL

1. Шлем

```
Program Slem;  
Var b1,b2,b3,s:integer;  
Begin  
    read(b1,b2,b3);  
    s:=(b1+b2+b3) div 2;  
    writeln(s-b1);  
    writeln(s-b2);  
    writeln(s-b3);  
End.
```

2. Ормари

```
Program Ormari;  
Var d,s,o,k,k1,s1,su,kt,o1:integer;  
Begin  
    readln(k,s);  
    readln(o);  
    su:=0;  
    o1:=0; d:=0;  
    while o1<o do begin  
        readln(k1,s1);  
        if k1=1 then kt:=k;  
        su:=su+s1;  
        if kt>0 then begin  
            o1:=o1+su div s;  
            su:=su mod s;  
            kt:=kt-1;  
        end;  
        d:=d+1;  
        writeln(o1:5,su:5,kt:5);  
    end;  
    writeln(d);  
End.
```

3. Подела

```
Program Podela;  
Var d:array[1..100]of integer;  
    i,n,p,ps,k,j,t:integer;  
Begin  
    readln(p);  
    readln(n);  
    for i:=1 to n do readln(d[i]);  
    for i:=1 to n-1 do  
        for j:=i+1 to n do  
            if d[i]>d[j] then begin  
                t:=d[i];  
                d[i]:=d[j];  
                d[j]:=t  
            end;  
        k:=0;  
        ps:=0;  
        while (k<n) and (ps+p/(k+1) > ps+d[k+1]+p/(k+2)) do begin  
            k:=k+1;  
            ps:=ps+d[k];  
        end;  
        writeln(k);  
End.
```

Програмски језик BASIC

1. Шлем

```
REM SLEM
CLS
INPUT B1
INPUT B2
INPUT B3
S = (B1 + B2 + B3) / 2
PRINT S - B1
PRINT S - B2
PRINT S - B3
END
```

2. Ормари

```
REM ORMARI
CLS
INPUT K
INPUT S
INPUT O
SU = 0
O1 = 0
D = 0
WHILE O1 < O
    INPUT K1
    INPUT S1
    IF K1 = 1 THEN KT = K
    SU = SU + S1
    IF KT > 0 THEN
        O1 = O1 + INT(SU / S)
        SU = SU MOD S
        KT = KT - 1
    END IF
    D = D + 1
WEND
PRINT D
END
```

3. Подела

```
REM PODELA
CLS
DIM D(100)
INPUT P
INPUT N
FOR I = 1 TO N
    INPUT D(I)
NEXT I
FOR I = 1 TO N - 1
    FOR J = I + 1 TO N
        IF D(I) > D(J) THEN
            T = D(I)
            D(I) = D(J)
            D(J) = T
        END IF
    NEXT J
NEXT I
K = 0
PS = 0
WHILE (K < N) AND (PS + P / (K + 1) > PS + D(K + 1) + P / (K + 2))
    K = K + 1
    PS = PS + D(K)
WEND
PRINT K
END
```

Програмски језик C++

1. Шлем

```
// Slem
#include <iostream>
int main(){
    int b1,b2,b3,s;
    cin >> b1 >> b2 >> b3;
    s = (b1+b2+b3)/2;
    cout << s-b1;
    cout << s-b2;
    cout << s-b3;
}
```

2. Ормари

```
// Ormari
#include <iostream>
int main(){
    int k,s,o,d,i,k1,s1,o1,su,kt;
    cin >> k >> s >> o;
    su=0;
    o1=0;
    d=0;
    while (o1<o){
        cin >> k1 >> s1;
        if (k1==1) kt=k;
        su=su+s1;
        if (kt>0) {
            o1=o1+su/s;
            su=su%s;
            kt=kt-1;
        }
        d=d+1;
    }
    cout << d;
}
```

3. Подела

```
// Podela
#include <iostream>
int main(){
    int d[100],i,n,p,ps,k,j,t;
    cin >> p >> n;
    for(i=0;i<n;i++) cin >> d[i];
    for(i=0;i<n-1;i++)
        for(j=i+1;j<n;j++)
            if (d[i]>d[j]) {
                t=d[i];
                d[i]=d[j];
                d[j]=t;
            }
    k=0;
    ps=0;
    while ((k<n) && ((ps+p/(k+1))>(ps+d[k]+p/(k+2)))){
        ps=ps+d[k];
        k=k+1;
    }
    cout << k;
}
```