

Окружно такмичење из програмирања за ученике основних школа

27. март 2010

II категорија (7. и 8. разред)

Програмски језик PASCAL

1. РАСВЕТА

```
Program Rasveta;
Var l1,l2,x1,x2,y1,y2,m1,m2:integer;
Begin
  readln(l1,x1,y1);
  readln(l2,x2,y2);
  m1:=(x1+y1) mod 3;
  m2:=(x2+y2) mod 3;
  if l1=l2 then begin
    if m1=m2 then writeln('RADI')
    else if (m1<>1) and (m2<>1) then writeln('RADI')
    else writeln('LOSA POZICIJA')
  end
  else begin
    if m1=m2 then writeln('LOSE LAMPE')
    else if (m1<>1) and (m2<>1) then writeln('LOSE LAMPE')
    else writeln('POTPUNO NEPOKLAPANJE')
  end
End.
```

2. ПОЛИЦЕ

```
Program Police;
Var n,i,b:integer;  p,d:real;
Begin
  readln(n,p);
  i:=0;
  b:=0;
  while i<n do begin
    readln(d);
    if d>=p then begin
      i:=i+trunc(d/p);
      b:=b+1;
    end
  end;
  writeln(b)
End.
```

3. ШЕФ

```
Program Sef;
Var niz:array[1..100] of integer;
    n,m,x,y,d,i,j:integer;
Begin
  readln(n);
```

```

d:=0;
m:=0;
for i:=1 to n do begin
  readln(x);
  if (x=-1) or (x=-2) then begin
    m:=x;
    readln(x)
  end;
  if m=-1 then begin
    if (d>=x) and (x<>0) then begin
      for j:=x to d-1 do niz[j]:=niz[j+1];
      d:=d-1;
    end;
    if (x=0) and (d>0) then begin
      niz[d+1]:=niz[d];
      d:=d+1;
    end;
  end;
  if m=-2 then begin
    readln(y);
    if (d>=x) or (d+1=x) then begin
      for j:=d+1 downto x+1 do niz[j]:=niz[j-1];
      niz[x]:=y;
      d:=d+1;
    end
  end
end;
for i:=1 to d do writeln(niz[i])
End.

```

Програмски језик BASIC

1. РАСВЕТА

```
REM RASVETA
INPUT L1 : INPUT X1 : INPUT Y1
INPUT L2 : INPUT X2 : INPUT Y2
M1 = (X1 + Y1) MOD 3
M2 = (X2 + Y2) MOD 3
IF L1 = L2 THEN
    IF M1 = M2 THEN
        PRINT "RADI"
    ELSEIF (M1 <> 1) AND (M2 <> 1) THEN
        PRINT "RADI"
    ELSE
        PRINT "LOSA POZICIJA"
    ENDIF
ELSE
    IF M1 = M2 THEN
        PRINT "LOSE LAMPE"
    ELSEIF (M1 <> 1) AND (M2 <> 1) THEN
        PRINT "LOSE LAMPE"
    ELSE
        PRINT "POTPUNO NEPOKLAPANJE"
    ENDIF
ENDIF
END
```

2. ПОЛИЦЕ

```
REM POLICE
INPUT N
INPUT P
I = 0
B = 0
WHILE I < N
    INPUT D
    IF D >= P THEN
        I = I + INT(D / P)
        B = B + 1
    ENDIF
WEND
PRINT B
END
```

3. ШЕФ

```
REM SEF
DIM NIZ(100)
INPUT N
D = 0
M = 0
```

```

FOR I = 1 TO N
  INPUT X
  IF X = -1 OR X = -2 THEN
    M = X
    INPUT X
  ENDIF
  IF M = -1 THEN
    IF D >= X AND X <> 0 THEN
      FOR J = X TO D - 1
        NIZ(J) = NIZ (J + 1)
      NEXT J
      D = D - 1
    ENDIF
    IF X = 0 AND D > 0 THEN
      NIZ(D + 1) = NIZ(D)
      D = D + 1
    ENDIF
  ENDIF
  IF M = -2 THEN
    INPUT Y
    IF D >= X OR D + 1 = X THEN
      FOR J = D + 1 TO X + 1 STEP -1
        NIZ(J) = NIZ(J - 1)
      NEXT J
      NIZ(X) = Y
      D = D + 1
    ENDIF
  ENDIF
NEXT I
FOR I = 1 TO D
  PRINT NIZ(I)
NEXT I
END

```

Програмски језик C++

1. РАСВЕТА

```
// RASVETA
#include <iostream>
int main(){
    int l1,l2,x1,x2,y1,y2,m1,m2;
    cin >> l1 >> x1 >> y1;
    cin >> l2 >> x2 >> y2;
    m1=(x1+y1)%3;
    m2=(x2+y2)%3;
    if (l1==l2) {
        if (m1==m2) cout << "RADI\n";
        else if ((m1!=1) && (m2!=1)) cout << "RADI\n";
        else cout << "LOSA POZICIJA\n";
    }
    else {
        if (m1==m2) cout << "LOSE LAMPE\n";
        else if ((m1!=1) && (m2!=1)) cout << "LOSE LAMPE\n";
        else cout << "POTPUNO NEPOKLAPANJE\n";
    }
}
```

2. ПОЛИЦЕ

```
// POLICE
#include <iostream>
int main(){
    int n,i,b; float p,d;
    cin >> n >> p;
    i=0; b=0;
    while (i<n) {
        cin >> d;
        if (d>=p) {
            i=i+(int)(d/p);
            b=b+1; }
    }
    cout << b << "\n";
}
```

3. ШЕФ

```
// SEF
#include <iostream>
int main(){
    int niz[100],d,n,m,x,y,i,j;
    cin >> n;
    d=0;
    m=0;
    for(i=0;i<n;i++){
        cin >> x;
        if ((x== -1) || (x== -2)) {
```

```

        m=x;
        cin >> x;
    }
    if (m==-1){
        if ((d>=x) && (x!=0)) {
            for(j=x-1;j<d-1;j++) niz[j]=niz[j+1];
            d--;
        }
        if ((x==0) && (d>0)){
            niz[d]=niz[d-1];
            d++;
        }
    }
    if (m==-2){
        cin >> y;
        if ((d>=x) || (d+1==x)) {
            for(j=d;j>=x;j--) niz[j]=niz[j-1];
            niz[x-1]=y;
            d++;
        }
    }
}
for(i=0;i<d;i++) cout << niz[i] << "\n";
}

```