

Општинско такмичење из програмирања за ученике основних школа

12. март 2011

II категорија (7. и 8. разред)

Програмски језик PASCAL

1. STOLOVI

```
Program STOLOVI;
Var r,s1,s2,b,s3,z:integer;
Begin
  readln(r,s1,s2,b);
  z:=s1*5+s2*7+b;
  s3:=(r-z) div 2;
  writeln(s3)
End.
```

2. KARTA

```
Program KARTA;
Var h,v,p,r:integer;
Begin
  h:=0; v:=0;
  readln(p,r);
  if (p mod 2 = 0) then r:=-r;
  if (p>2) then h:=h+r else v:=v+r;
  readln(p,r);
  if (p mod 2 = 0) then r:=-r;
  if (p>2) then h:=h+r else v:=v+r;
  readln(p,r);
  if (p mod 2 = 0) then r:=-r;
  if (p>2) then h:=h+r else v:=v+r;
  if (h=0) or (v=0) then writeln('ISTA')
  else begin
    if (v>0) then write('S')
    else write('J');
    if (h>0) then writeln('I')
    else writeln('Z')
  end
End.
```

3. PARKING

```
Program PARKING;
Var p,n,d,v,i:integer;
Begin
  readln(p,n);
  v:=0;
  for i:=1 to n do begin
    readln(d);
    if d>0 then begin
      v:=v+3*d;
      if v>p then v:=p
    end;
    if d<0 then begin
      v:=v+2*d;
      if v<0 then v:=0
    end
  end;
  writeln(v)
End.
```

Програмски језик BASIC

1. STOLOVI

```
REM STOLOVI
INPUT R
INPUT S1
INPUT S2
INPUT B
Z = S1 * 5 + S2 * 7 + B
S3 = INT((R - Z) / 2)
PRINT S3
END
```

2. KARTA

```
REM KARTA
H = 0 : V = 0
INPUT P
INPUT R
IF P MOD 2 = 0 THEN R = -R
IF P > 2 THEN H = H + R ELSE V = V + R
INPUT P
INPUT R
IF P MOD 2 = 0 THEN R = -R
IF P > 2 THEN H = H + R ELSE V = V + R
INPUT P
INPUT R
IF P MOD 2 = 0 THEN R = -R
IF P > 2 THEN H = H + R ELSE V = V + R
IF H = 0 OR V = 0 THEN
    PRINT "ISTA"
ELSE
    IF V > 0 THEN
        PRINT "S";
    ELSE
        PRINT "J";
    END IF
    IF H > 0 THEN PRINT "I" ELSE PRINT "Z"
END IF
END
```

3. PARKING

```
REM PARKING
INPUT P
INPUT N
V = 0
FOR I = 1 TO N
    INPUT D
    IF D > 0 THEN
        V = V + 3 * D
        IF V > P THEN V = P
    END IF
    IF D < 0 THEN
        V = V + 2 * D
        IF V < 0 THEN V = 0
    END IF
NEXT I
PRINT V
END
```

Програмски језик C++

1. STOLOVI

```
// Stolovi
#include <iostream>
int main(){
    int r,s1,s2,s3,b,z;
    cin >> r >> s1 >> s2 >> b;
    z=s1*5+s2*7+b;
    s3=(r-z)/2;
    cout << s3;
}
```

2. KARTA

```
// Karta
#include <iostream>
int main(){
    int h,v,p,r;
    h=0; v=0;
    cin >> p >> r;
    if (p%2==0) r=-r;
    if (p>2) h=h+r; else v=v+r;
    cin >> p >> r;
    if (p%2==0) r=-r;
    if (p>2) h=h+r; else v=v+r;
    cin >> p >> r;
    if (p%2==0) r=-r;
    if (p>2) h=h+r; else v=v+r;
    if ((h==0)||v==0) cout << "ISTA\n";
    else {
        if (v>0) cout << "S";
        else cout << "J";
        if (h>0) cout << "I\n";
        else cout << "Z\n";
    }
}
```

3. PARKING

```
// Parking
#include <iostream>
int main(){
    int p,n,d,v,i;
    cin >> p >> n;
    v=0;
    for(i=0;i<n;i++){
        cin >> d;
        if (d>0) {
            v=v+3*d;
            if (v>p) v=p;
        }
        if (d<0) {
            v=v+2*d;
            if (v<0) v=0;
        }
    }
    cout << v;
}
```