

Државно такмичење из програмирања
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I категорија (5. и 6. разред)

Зид

```
Program Zid;
Var a,b,c,a1,b1,c1,a2,b2,c2,max1,max2:integer;
Begin
  readln(a,b,c);
  readln(a1,b1,c1);
  readln(a2,b2,c2);
  max1:=abs(a-a1);
  if max1<abs(b-b1) then max1:=abs(b-b1);
  if max1<abs(c-c1) then max1:=abs(c-c1);
  max2:=abs(a-a2);
  if max2<abs(b-b2) then max2:=abs(b-b2);
  if max2<abs(c-c2) then max2:=abs(c-c2);
  if max1<max2 then writeln(30*max1)
  else writeln(30*max2)
End.
```

Кључ

```
Program Kljuc;
Var r,d:real;
    n,i,b:integer;
Begin
  readln(r);
  readln(n);
  for i:=1 to n do begin
    readln(d);
    if d>r then b:=i
  end;
  writeln(b)
End.
```

Године

```
Program Godine;
Var n,k,g,b,i,l:integer;
    s1:string[13];
    s2:string[3];
Begin
  readln(g);
  k:=0;
  if (1800<=g) and (g<=2799) then begin
    readln(n);
    for i:=1 to n do begin
      readln(s1);
      s2:=copy(s1,5,3);
      val(s2,b,l);
      if b<800 then b:=b+2000
      else b:=b+1000;
      if b=g then k:=k+1
    end;
  end;
  writeln(k)
End.
```

II категорија (7. и 8. разред)

Сат

```
Program Sat;
Var s,m,b,sp,mp,sl,ml,i:integer;
Begin
  readln(s,m);
  sl:=0; ml:=0;
  for sp:=0 to 23 do begin
    for mp:=0 to 59 do begin
      if (ml=mp) and (sp=sl) then b:=b+1;
      ml:=(ml+m) mod 60;
      sl:=(sl+s) mod 24;
    end;
  end;
  writeln(b-1)
End.
```

Брава

```
Program Brava;
Var d,p:array[1..1000] of real;
    pos:array[1..1000] of integer;
    n,m,i,j,k,l:integer;
    t:real;
Begin
  readln(n);
  for i:=1 to n do readln(d[i]);
  readln(m);
  for i:=1 to m do readln(p[i]);
  for i:=1 to m-1 do
    for j:=i+1 to m do
      if p[i]<p[j] then begin
        t:=p[i]; p[i]:=p[j]; p[j]:=t
      end;
    end;
  i:=1; j:=1;
  l:=0;
  while (i<=n) and (j<=m) do begin
    k:=n;
    while (k>=i) and (p[j]>=d[k]) do k:=k-1;
    i:=k+2;
    if k<n then begin
      l:=l+1;
      pos[l]:=k+1;
      j:=j+1
    end
  end;
  end;
```

```

    if j>m then
        for i:=1 to l do writeln(pos[i])
    else
        writeln(j-1)
End.

```

Воденице

```

Program Vodenice;
Var a:array[1..200,1..100] of integer;
    m,n,i,j:integer;
    prolaz:boolean;
Begin
    readln(m,n);
    i:=1;
    while i<2*m do begin
        for j:=1 to n-1 do read(a[i,j]);
        a[i,n]:=0;
        for j:=1 to n do read(a[i+1,j]);
        i:=i+2
    end;
    prolaz:=true;
    i:=1; j:=1;
    while (i<2*m) and (j<=n) and prolaz do begin
        if a[i+1,j]=1 then i:=i+2
        else if a[i,j]=1 then j:=j+1
        else prolaz:=false
    end;
    if prolaz and (j=n) and (i=2*m+1) then writeln('DEDA')
    else if (i=2*m+1) then writeln(i div 2)
    else writeln(i div 2+1)
End.

```