

Corrigés bac pratique informatique
Sections Science de l'informatique
27 Mai 2010 (8h30)

Corrigé Sujet le 27 Mai 2010 à 8h30

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{*****sujet bac pratique
2010 G1*****}
program minmax;
uses wincrt;
type
  tab=array[1..50]of integer;
  fentier=file of integer;
var
  f:fentier;n:integer;t,gn,pn,u:tab;
{*****}
remplir*****}
procedure remplir(var f:fentier;n:integer);
var
  i,v:integer;
begin
  assign(f,'c:\nombre.dat');
  rewrite(f);

  for i:=1 to n do
  begin
    repeat
      write('saisir un entier entre 1 et 9: ');
      readln(v);
    until v in [1..9];
    write(f,v);
  end;
  close(f);
end;
{*****}
transfert*****}
procedure transfert(var f:fentier;var
t:tab;n:integer);
var
  i:integer;
begin
  reset(f);
  for i:=1 to n do
    read(f,t[i]);
  write('les éléments du tableau sont: ');
  writeln;
  for i:=1 to n do
    write(t[i]:5);
  readln;
  close(f);
end;
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{*****}
tri*****}
procedure tri(var t:tab;n:integer);
var
  i,x,j:integer;
begin
  for i:=1 to (n-1) do
    for j:=(i+1) to n do
      if t[j]<t[i] then
      begin
        x:=t[j];
        t[j]:=t[i];
        t[i]:=x;
      end;
    end;
  end;
{*****}
nombre*****}
procedure nombre(t:tab;var
pn,gn:tab;n:integer);
var i,x:integer;
begin
  tri(t,n);
  for i:= 1 to n do
    pn[i]:=t[i];
  for i := 1 to n div 2 do
  begin
    x:=t[i];
    t[i]:=t[n-i+1];
    t[n-i+1]:=x;
  end;
  for i := 1 to n do
    gn[i]:=t[i];
  write(' le plus grand nombre gn: ');
  for i := 1 to n do
    write(gn[i]);
  writeln;
  write('le plus petit nombre pn: ');
  for i := 1 to n do
    write(pn[i]);
  writeln;
end;
{*****}
suite*****}
procedure suite( gn:tab; var u :tab; n:integer);
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var i:integer;
begin
for i := 1 to (n div 2) do
u[i]:=gn[i]-gn[n-i+1];
end;
{***** function
verif*****}
function verif(u:tab;n:integer):boolean;
var
i,k,r0,r:integer; ok:boolean;
begin
r0:=u[1]-u[2];
ok:=true;i:=2; k:=n div 2 ;
while(ok) and (i<= k-1) do
begin
r:=u[i]-u[i+1];
if r0<>r then
ok:=false
else
i:=i+1;
end;
verif:=ok;
end;
{*****programme
principale*****}
begin

repeat
write('donner n:');read(n);
until n in [3..50];
remplir(f,n);
clrscr;
transfert(f,t,n);
writeln;

writeln('_____');
writeln;

writeln('_____');
writeln;
nombre(t,pn,gn,n);
writeln;

writeln('_____');
writeln;

writeln('_____');
suite(gn,u,n);
if (verif(u,n)) then
write('u est une suite arithmétique')
else

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write('u n'est pas une suite arithmétique');
end.

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