

Propositions de correction  
Bac Pratique informatique  
4 scientifiques -26 mai 2014-8h

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```
Program BP2014_8H;
uses wincrt;
VAR
M,N:integer;
(*****)
Procedure Saisie(var N,M:integer);
Begin
  Repeat
    write('Bornes de l'intervalle (>=100) : ');
    readln(N,M);
  Until(N>=100) and (M>N);
End;

(*****)
Function Som_Chiffres(N:integer):integer;
var
i,x,e,S:integer;
ch:String;
Begin
  S:=0;
  STR(N,ch);
  For i:= 1 to Length(ch) do
    begin
      VAL(ch[i],x,e);
      S:=S+x;
    end;
  Som_Chiffres:=S;
End;
(*****)
Function Premier(N:integer):Boolean;
var
i:integer;
Pr : boolean;
Begin
i:=2;
Pr :=True;
While(i<= N div 2 ) and (Pr = True) do
  begin
    if(N mod i = 0)then
      Pr:=False
    Else
      i:=i+1;
  end;
end;
```

```
end;
Premier := Pr;
End;
(*****)
Procedure Affichage(N,M:integer);
var
i,S:integer;
Begin
For i:=N to M do
begin
if(i MOD Som_Chiffres(i) = 0) and (Premier(Pred(i))) then
writeln(i);
end;
End;
(*****)
BEGIN
Saisie(N,M);
Affichage(N,M);
END.
```

Propositions de correction  
Bac Pratique informatique  
4 scientifiques -26 mai 2014-9h30

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```
Program BP_2014_9H30;
uses wincrt;
VAR
N:integer;
(*****)
Procedure Saisie (var N : integer);
Begin
  Repeat
    write('Donner un entier pair >= 4 : ');
    readln(N);
  Until(N>=4) and (N MOD 2 = 0);
End;

(*****)
Function Premier(N:integer):Boolean;
var
i:integer;
Pr : boolean;
Begin
i:=2;
Pr :=True;
While(i<= N div 2 ) and (Pr = True) do
  begin
    if(N mod i = 0)then
      Pr:=False
    Else
      i:=i+1;
    end;
    Premier := Pr;
  End;

(*****)
Procedure Affichage(N:integer);
var
i:integer;
Begin
  For i:= 2 to (N-2) do
    Begin
      if(Premier(i) and Premier(N-i))then
        writeln(i,' ',N-i);
    End;
  End;
End;
```

(\*\*\*\*\*)

```
BEGIN
  Saisie(N);
  Affichage(N);
END.
```

Propositions de correction  
Bac Pratique informatique  
4 scientifiques -26 mai 2014-11h

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```
Program BP_2014_11H;
uses wincrt;
TYPE
Tab=Array[1..99] of integer;
VAR
T,T1:Tab;
N:integer;
(*****)
Procedure Saisie(var N: integer);
Begin
  Repeat
    write('Taille du tableau [5..30] : ');
    readln(N);
  Until(N in [5..30]);
End;
(*****)
Function Existe(T:Tab;N,x:integer):Boolean;
var
  i:integer;

Begin
  i:=1;
  while(i<=N) and (T[i] <> x) do
    i:=i+1;
  Existe :=(i<=N);
End;

(*****)
Procedure Remplissage(var T:Tab;N:integer);
var
  i:integer;
Begin
  For i:=1 to N do
    begin
      Repeat
        write('T[,i] = ');
        readln(T[i]);
      Until(T[i] in [1..99]) and (Not(Existe(T,i-1,T[i])));
    end;
End;
(*****)
Procedure Initialisation(var T:Tab);
```

```
var
i:integer;
Begin
  For i:=1 to 99 do
    T[i] :=0;
end;
(*****
Procedure Trier(var T:Tab;var T1:Tab;N:integer);
var
i,j:integer;
Begin
  For i:=1 to N do
    T1[T[i]] :=T[i];

    j:=0;
  For i:= 1 to 99 do
    begin
      if(T1[i]<>0)then
        begin
          j:=j+1;
          T[j]:=T1[i];
        end;
      end;
    end;
  End;
(*****
Procedure Affichage(T:Tab;N:integer);
var
i:integer;
Begin
  For i:=1 to N do
    write(T[i],'|');
  End;
(*****

BEGIN
  Saisie(N);
  Remplissage(T,N);
  Initialisation(T1);
  Trier(T,T1,N);
  Affichage(T1,N);
END.
```

Propositions de correction  
Bac Pratique informatique  
4 scientifiques -26 mai 2014-14h

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```
Program BP_2014_14H;
uses wincrt;
TYPE
Tab = Array[1..25] of integer;
var
T,TD,TA:Tab;
N,ND,NA:integer;
(*****
Procedure Saisie(var N:integer);
Begin
  Repeat
    write('Taille du tableau [5..25] : ');
    readln(N);
  Until( N in [5..25]);
End;
(*****
```

```
Procedure Remplissage(var T:Tab;N:integer);
var
i:integer;
Begin
  For i:=1 to N do
    begin
      Repeat
        write('T[,i] = ');
        readln(T[i]);
        Until(T[i] >0);
      end;
    end;
End;
(*****
```

```
Function Som_Diviseurs(N:integer):integer;
var
S,i:integer;
Begin
  S:=1;
  For i:=2 to ( N div 2 ) do
    begin
      if( N MOD i = 0)then
        S :=S+i;
      end;
    end;
Som_Diviseurs :=S;
```

End;

```
(*****)  
Procedure Transfert(T:Tab;N:integer;var TA,TD:Tab;var NA,ND:integer);  
var  
  i:integer;  
Begin  
  NA:=0;ND:=0;  
  
  For i:=1 to N do  
    Begin  
      if(T[i] > Som_Diviseurs(T[i]))then  
        begin  
          NA:=NA+1;  
          TA[NA] := T[i];  
        end;  
      if(T[i] < Som_Diviseurs(T[i]))then  
        begin  
          ND:=ND+1;  
          TD[ND] :=T[i];  
  
        end;  
    End;  
  End;  
End;
```

```
(*****)  
Procedure Affichage(T:Tab;N:integer);  
var  
  i:integer;  
Begin  
  For i:=1 to N do  
    write(T[i],'|');  
  End;  
End;
```

```
(*****)  
BEGIN  
Saisie(N);  
Remplissage(T,N);  
readln;  
CLRSCR;  
Transfert(T,N,TA,TD,NA,ND);  
writeln('Affichage des éléments abondants : ');  
Affichage(TA,NA);  
writeln;  
writeln('Affichage des éléments Déficients : ');  
Affichage(TD,ND);
```

END.