

**Correction bac pratique
informatique**

**Section :
Mathématiques
Sciences expérimentales
Sciences techniques**

**Date : 26 mai 2014 à
8:00**

**Prof : HADHRI Aymen
(Lycée Sidi Alouane)**

```
program bac26_mai_8;
uses wincrt;
var n,m:integer;

procedure saisir (var n,m:integer);
begin
repeat
writeln('n=');
readln(n);
until (n>=100);
repeat
writeln('m=');
readln(m);
until(m>n);
end;

function harshad (e:integer):boolean;
var ch:string;
s,i,k,erreur:integer;
begin
str(e,ch);
s:=0;
for i:=1 to length(ch) do
begin
val(ch[i],K,erreur);
s:=s+k;
```

```
end;
harshad:=e mod s =0;
end;

function premier (e:integer):boolean;
var i,s:integer;
begin
s:=0;
for i:=1 to e do
if(e mod i =0)then
s:=s+1;
premier:=s=2;
end;

procedure affiche (n,m:integer);
var i:integer;
begin
for i:=n to m do
if((harshad(i))and(premier(i-1)))then
writeln(i);
end;

begin
saisir(n,m);
affiche(n,m);
end.
```

Correction bac pratique informatique	Section : Mathématiques	Date : 26 mai 2014 à 9:30
	Sciences expérimentales Sciences techniques	Prof : HADHRI Aymen (Lycée Sidi Alouane)

```
program bac26_mai_9h30;
uses wincrt;
var nb:integer;
```

```
procedure saisir (var nb:integer);
begin
repeat
writeln('nb=');
readln(nb);
until((nb>=4)and(nb mod 2=0));
end;
```

```
function premier (e:integer):boolean;
var i,s:integer;
begin
s:=0;
for i:=1 to e do
if(e mod i =0)then
s:=s+1;
premier:=s=2;
end;
```

```
procedure affiche (nb:integer);
var i,j:integer;
begin
for i:=2 to nb do
for j:=2 to nb do
if((premier(i))and(premier(j))and(i+j=nb))then
write('(',i,',',j,')');
end;
```

```
begin
saisir(nb);
affiche(nb);
end.
```

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**Date : 26 mai 2014 à
11:00**

**Prof : HADHRI Aymen
(Lycée Sidi Alouane)**

```
program bac26_mai_11;
uses winCRT;
type tab=array [1..30]of integer;
var t:tab;
n:integer;

procedure saisir (var n:integer);
begin
repeat
writeln('n=');
readln(n);
until(n in [5..30]);
end;

procedure remplir (var t:tab;n:integer);
var i:integer;
function distinct (t:tab;i,k:integer):boolean;
var j,s:integer;
begin
s:=0;
for j:=1 to i do
if(t[j]=k)then
s:=s+1;
distinct:=s=1;
end;
begin
for i:=1 to n do
repeat
writeln('T['i,']=');
readln(t[i]);
until((t[i] in [1..99])and(distinct(t,i,t[i])));
end;
```

```
procedure trier (var t:tab;n:integer);
var i,j:integer;
ti:array[1..99]of integer;
begin
for i:=1 to 99 do
ti[i]:=0;
for i:=1 to n do
ti[ti[i]]:=t[i];
j:=0;
for i:=1 to 99 do
if(ti[i]<>0)then
begin
j:=j+1;
t[j]:=ti[i];
end;
end;

procedure affiche (t:tab;n:integer);
var i:integer;
begin
for i:=1 to n do
write(t[i],'|');
end;

begin
saisir(n);
remplir(t,n);
trier(t,n);
affiche(t,n);
end.
```

**Correction bac pratique
informatique**

**Section :
Mathématiques
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Sciences techniques**

**Date : 26 mai 2014 à
14:00**

**Prof : HADHRI Aymen
(Lycée Sidi Alouane)**

```
program bac26_mai_14;
uses wincrt;
type tab=array [1..25]of integer;
var t,ta,td:tab;
n,ia,id:integer;

procedure saisir (var n:integer);
begin
repeat
writeln('n=');
readln(n);
until(n in [5..25]);
end;

procedure remplir (var t:tab;n:integer);
var i:integer;
begin
for i:=1 to n do
repeat
writeln('T['i,']=');
readln(t[i]);
until(t[i]>0);
end;

function SOMDIV (e:integer):integer;
var i,s:integer;
begin
s:=0;
for i:=1 to e-1 do
if(e mod i=0)then
s:=s+i;
SOMDIV:=s;
end;
```

```
procedure TRANSFERER
(t:tab;n:integer;var ta,td:tab;var
ia,id:integer);
var i:integer;
begin
ia:=0;
id:=0;
for i:=1 to n do
if(SOMDIV(t[i])<t[i])then
begin
ia:=ia+1;
ta[ia]:=t[i];
end
else if(SOMDIV(t[i])>t[i])then
begin
id:=id+1;
td[id]:=t[i];
end;
end;

procedure affiche (ta,td:tab;ia,id:integer);
var i:integer;
begin
for i:=1 to id do
write(td[i,']=');
writeln;
for i:=1 to ia do
write(ta[i,']=');
end;

begin
saisir(n);
remplir(t,n);
TRANSFERER (t,n,ta,td,ia,id);
affiche(ta,td,ia,id);
end.
```

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Niveau : Mathématiques
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Date :
27 mai 2014 à 8 :00

Prof :
HADHRI Aymen (Lycée
Sidi Alouane)

```
program bac27_5_8;
uses wincrt;
type tab =array [1..500]of integer;

var Un,Um:tab;
i,j,n,m:integer;

procedure saisir (var n,m:integer);
begin
repeat
writeln('n=');
readln(n);
writeln('m=');
readln(m);
until((n>=10)and(n<m)and(m<=999));
end;

procedure termes (var
Un,Um:tab;n,m:integer;var i,j:integer);
function SOMDIV (e:integer):integer;
var i,s:integer;
begin
s:=0;
for i:=1 to e-1 do
if(e mod i=0)then
s:=s+i;
SOMDIV:=s;
end;
begin
i:=1;
Un[i]:=n;
repeat
i:=i+1;
n:=SOMDIV(n);
Un[i]:=n;
until((Un[i]=Un[i-1])or(n=1));
j:=1;
Um[j]:=m;
```

```
repeat
j:=j+1;
m:=SOMDIV(m);
Um[j]:=m;
until((Um[j]=Um[j-1])or(m=1));
end;

procedure affiche (Un,Um:tab;i,j:integer);
var a:integer;
function commun
(Un,Um:tab;i,j:integer):integer;
var a,b,s:integer;
begin
s:=0;
for a:=1 to i do
for b:=1 to j do
if(Un[a]=Um[b])then
s:=s+1;
commun:=s;
end;
begin
write('La suite Aliquote de ',Un[1],' est ');
for a:=1 to i do
write(Un[a],' ');
writeln;
write('La suite Aliquote de ',Um[1],' est ');
for a:=1 to j do
write(Um[a],' ');
writeln;
writeln('Nombre des termes communs=
',commun(Un,Um,i,j));
end;

begin
saisir(n,m);
termes(Un,Um,n,m,i,j);
affiche(Un,Um,i,j);
end.
```

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Date :
27 mai 2014 à 9:30

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```
program bac27_5_9h30;
uses wincrt;

var ch:string;

procedure saisir (var ch:string);

function verif (ch:string):boolean;
var i,nb:integer;
begin
nb:=0;
for i:=1 to length(ch) do
if(ch[i]='@')then
nb:=nb+1;
verif:=nb=1;
end;

function verifnom (ch:string):boolean;
var i:integer;
a:string;
begin
a:="";
for i:=1 to length(ch) do
if((upcase(ch[i])in['A'..'Z'])or(ch[i]
in['0'..'9'])or(ch[i]in['.','-', '_']))then
a:=a+ch[i];
```

```
verifnom:=(upcase(ch[1])in['A'..'Z'])and(a
=ch);
end;

begin
repeat
writeln('Saisir une adresse e-mail');
readln(ch);
until((verif(ch))and(verifnom(copy(ch,1,po
s('@',ch)-1))));
end;

function MotDePasse (ch:string):string;
var a:string;
begin
a:="";
a:=copy(ch,1,pos('@',ch)-1);
a:=a+ch[pos('@',ch)+1];
a:=a+ch[length(ch)];
MotDePasse:=a;
end;

begin
saisir(ch);
writeln('Mot De Passe =',MotDePasse
(ch));
end.
```

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Date :
27 mai 2014 à 11:00

Prof :
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Sidi Alouane)

```
program bac27_5_11;
uses wincrt;
type tab1=array [1..40]of integer;
tab2=array[0..10]of integer;
var t,v:tab1;u:tab2;
n,indv:integer;
procedure saisir (var n:integer);
begin
repeat
writeln('n=');
readln(n);
until(n in [5..40]);
end;
procedure remplirT(var t:tab1;n:integer);
var i:integer;
begin
for i:=1 to n do
repeat
writeln('T['i,']=');
readln(t[i]);
until(t[i]>=0);
end;
procedure remplirU (var u:tab2);
var i:integer;
begin
u[0]:=1;
for i:=1 to 10 do
u[i]:=3*u[i-1]-1;
end;
procedure remplirV (var
v:tab1;t:tab1;u:tab2;n:integer;var
indv:integer);
var i:integer;
function exist (u:tab2;k:integer):boolean;
var i,nb:integer;
begin
nb:=0;
for i:=1 to 10 do
if(u[i]=k)then
nb:=nb+1;
exist:=nb>0;
end;
begin
```

```
indv:=0;
for i:=1 to n do
if(exist(u,t[i]))then
begin
indv:=indv+1;
v[indv]:=t[i];
end;
end;
procedure trier (var v:tab1;indv:integer);
var i,j,pm,aux:integer;
begin
for i:=1 to indv-1 do
begin
pm:=i;
for j:=i+1 to indv do
if(v[j]<v[pm])then
pm:=j;
aux:=v[i];
v[i]:=v[pm];
v[pm]:=aux;
end;
end;
procedure affiche (v:tab1;indv:integer);
var i:integer;
begin
for i:=1 to indv do
if(v[i]<>v[i-1])then
write(v[i], ' ');
end;
end;
begin
saisir(n);
remplirT(t,n);
remplirU(u);
remplirV(v,t,u,n,indv);
if(indv=0)then
writeln('Aucun élément de T ne correspond
à un terme de la suite U')
else
begin
trier(v,indv);
affiche(v,indv);
end;
end.
```

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Date :
27 mai 2014 à 14:00

Prof :
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Sidi Alouane)

```
program bac27_5_14;
uses wincrt;

var a,b:longint;

procedure saisir (var a,b:longint);
begin
repeat
writeln('a=');
readln(a);
until(a>=100);
repeat
writeln('b=');
readln(b);
until(b>a);
end;

procedure affiche (a,b:longint);
var i:longint;
function verifier(e:longint):boolean;
var ch:string;
i,erreur:integer;
begin
str(e,ch);
i:=1;
repeat
i:=i+1;
val(copy(ch,1,i),e,erreur);
until((e mod i<>0)or(i=length(ch)));
verifier:=e mod i=0;
end;
begin
for i:=a to b do
if(verifier(i))then
write(i,'|');
end;

begin
saisir(a,b);
affiche(a,b);
end.
```