

Corrigés Bac pratique Informatique

Sections Math, Sciences et Technique

28 mai 2012(8h30, 10h,14h, 15h30)

lundi 28 mai 2012 à 8h30

```
program Lundi_28_05_2012_8h30;
uses wincrt;
type tab= array [1..20] of integer;
var t:tab;      p,n:integer;
procedure saisie(var n,p:integer; var t:tab);
var i:integer;
begin
Repeat
write('n='); readln(n);
until n in [5..20];
for i:=1 to n do
repeat
T[i]:= random(10000);
until (T[i] >=1000) and(T[i]<=9999);
Repeat
write('p='); readln(p);
until (p>=1000) and(p<=9999);
end;

Procedure affichage (T: Tab; n:integer;);
var i:integer;
begin
for i:=1 to n do
Writeln('T[' ,i, ']=' , T[i]);
end;

function recherchet(t:Tab; n,p:integer):boolean;
var i :integer;
begin
i:=0;
repeat
i:=i+1;
until (i=n) or (T[i]=p);
recherchet:= (T[i]=p);
end;

function recherchep(t:tab; n,p:integer):boolean;
var i:integer;
begin
i:=0;
repeat
i:=i+1;
until (i=n) or (T[i] div 10=p div 10);
recherchep:= (T[i] div 10=p div 10);
end;

begin
saisie(n,p,t);
affichage(t,n);
if recherchet(t,n,p) then write(p, ' appartient totalement à T')
else if recherchep(t,n,p) then write(p,' appartient partiellement à T')
else write(p,' n'appartient pas à T');
end.
```

Correction proposée par
Mr Najeh SOUGUIR

```
program Lundi28_05_2012_10h30;
uses wincrt;
type tab= array [1..20] of string[20];
var t:tab;  n:integer;
function verif(ch: string):boolean;
var i:integer;
begin
verif:=true;
for i:=1 to length(ch) do
if not(ch[i] in ['A'..'Z',' ']) then verif:= false;
end;
procedure saisie(var n:integer; var t:tab);
var i:integer;
begin
Repeat
write('n=');
readln(n);
until n in [5..20];
for i:=1 to n do
repeat
Write('T[' ,i, '=');
readln(T[i]);
until (verif(T[i])) and (length(T[i])in [1..20]);
end;
function voyelle(ch:string): integer;
var i,m:integer;
begin
m:=0;
for i:=1 to length(ch) do
if ch[i] in ['A','E','I','O','U','Y'] then
m:=m+1;
voyelle:=m;
end;
function maximum (t: tab; n:integer): integer;
var i,max : integer;
begin
max:= voyelle(T[1]);
for i:=2 to n do
if max <voyelle(T[i]) then max:= voyelle(T[i]);
maximum:=max;
end;
procedure affichage (t:tab; n:integer);
var i:integer;
begin
for i:=1 to n do
if maximum(t,n)=voyelle(T[i]) then writeln(t[i]);
end;
begin
Saisie(n,T);
Affichage(t,n);
end.
```

Correction proposée par
Mr Najeh SOUGUIR

```
Program Lundi_28_05_2012_14h;
uses wincrt;
var ch: string;

function verif(ch: string):boolean;
var i:integer;
begin
verif:=true;
for i:=1 to length(ch) do
if not(ch[i] in ['0'..'9']) then verif:= false;
end;

procedure saisie (var ch:string);
begin
repeat
write ('Donner un nombre : ');
readln(ch);
until verif(ch)and (length(ch)=15);
end;

function LUHN(ch:string):integer;
var
ch1,ch2:string;
i,d,e,s:integer;
begin
ch1:='';
for i:=1 to length(ch) do
begin
val(ch[i],d,e);
if i mod 2 = 0 then
str(d*2,ch2)
else
str(d,ch2);
ch1:=ch1+ch2;
end;
s:=0;
for i:=1 to length(ch1) do
begin
val(ch1[i],d,e);
s:=s+d;
end;
LUHN:=s;
end;

begin
saisie(ch);
if LUHN(ch) mod 10 =0 then write(ch,' est un nombre IMEI')
else write(ch,' n'est pas un nombre IMEI');
end.
```

Correction proposée par
Mr Najeh SOUGUIR

lundi 28 mai 2012 à 15h30

```
program Lundi_28_05_2012_15h30;
uses wincrt;
var ch: string;

function verif(ch: string):boolean;
var i:integer;
begin
verif:=true;
for i:=1 to length(ch) do
if not(ch[i] in ['0'..'9']) then verif:= false;
end;

procedure saisie (var ch:string);
begin
repeat
write ('Donner un nombre : ');
readln(ch);
until verif(ch)and (length(ch)=13);
end;

function EAN13(ch:string):boolean;
var
i,d,p,cc,e,s:integer;
begin
s:=0;
for i:=1 to length(ch)-1 do
begin
val(ch[i],d,e);
if i mod 2 =0 then
d:=d*3;
s:=s+d;
end;
p:=10- s mod 10;
val(ch[length(ch)],cc,e);
EAN13:=(p=cc);
end;

begin
saisie(ch);
if EAN13(ch) then write(ch,' est un code EAN13')
else write(ch,' n'est pas un code EAN13');
end.
```

Correction proposée par
Mr Najeh SOUGUIR

Corrigés Bac pratique Informatique

Sections Math, Sciences et Technique

29 mai 2012(8h30, 10h,14h ,15h30)

Mardi 29 mai 2012 à 8h30

```
program Mardi29_05_2012_8h30;
uses wincrt;
var ch:string;
    p,q:integer;

function verif(ch: string):boolean;
var i:integer;
begin
verif:=true;
for i:=1 to length(ch)-1 do
if not(ch[i] in ['A'..'Z',' ']) then verif:= false;
end;

procedure saisie(var ch:string);
begin
Repeat
write('Donner une phrase : ');
readln(ch);
until (verif(ch)) and (ch[length(ch)]='.');
end;

procedure lecture( var x:integer);
begin
Repeat
write('Donner un entier : ');
readln(x);
until x in [2..10];
end;

function codage(ch:string;p,q:integer): string;
var i:integer;
    ch1:string;
begin
ch1:='';
for i:= 1 to length(ch) do
if ch[i] in ['A'..'Z'] then
ch1:=ch1+chr((p*(ord(ch[i]))-64)+q)mod 26 +1+64)
else ch1:=ch1+ch[i];
codage:=ch1+'.';
end;

begin
Saisie(ch);
lecture(p);
lecture(q);
write('La chaîne codée est : ', codage(ch,p,q));
end.
```

Correction proposée par
Mr Najeh SOUGUIR

```
program Mardi_29_05_2012_10h;
uses wincrt;
type tab=array[1..12]of string[10];
var t:tab;p:integer;
function verif(ch: string):boolean;
var i:integer;
begin
verif:=true;
for i:=1 to length(ch) do
if not(ch[i] in ['A'..'Z']) then verif:= false;
end;
procedure saisie (var T:tab;var p:integer);
var i:integer;
begin
for i:=1 to 12 do
repeat
Write('T[' ,i, ']='); readln(T[i]);
until (verif(T[i])) and (length(T[i])>=3);
repeat
p:=random(3)
until p in [1..3];
end;
procedure tri(var t:tab;p:integer);
var i,j:integer; x:string;
begin
for i:=2 to 12 do
begin
x:=t[i];
j:=i ;
while(T[j-1][p]>x[p]) do
begin
T[j]:=T[j-1];
j:=j-1;
end;
T[j]:=x;
end;
end;
procedure affichage(t:tab);
var i:integer;
begin
for i:=1 to 12 do
begin
write(T[i]:10);
if i mod 3 = 0 then writeln;
end;
end;
begin
saisie(t,p);
Tri(t,p);
affichage(t);
end.
```

```
program Mardi29_05_2012_14h;
uses wincrt;
var ch,chr:string;

function verif(ch: string):boolean;
var i:integer;
begin
verif:=true;
for i:=1 to length(ch) do
if not(ch[i] in ['A'..'Z']) then verif:= false;
end;

procedure saisie(var ch:string);
begin
Repeat
write('Donner une chaîne : ');
readln(ch);
until (verif(ch)) and (length(ch) in [1..120]);
end;

function code(ch:string): string;
var i:integer;
    ch1,ch2:string;
begin
ch1:='';
for i:= 1 to length(ch) do
begin
str(ord(ch[i]),ch2);
ch1:=CH1+ch2;
end;
code:=ch1;
end;

function inverse(ch:string):string;
var i:integer;
    ch1:string;
begin
ch1:='';
for i := 1 to length(ch) do
ch1:= ch[i]+ch1;
inverse:=ch1;
end;

begin
Saisie(ch);
chr:=code(ch);
write('La chaîne cryptée est : ', inverse(chr));
end.
```

Correction proposée par
Mr Najeh SOUGUIR

```
program Mardi29_05_2012_15h30;
uses wincrt;
var ch:string;

function verif(ch: string):boolean;
var i:integer;
begin
verif:=true;
for i:=1 to length(ch) do
if not(ch[i] in ['A'..'Z']) then verif:= false;
end;

procedure saisie(var ch:string);
begin
Repeat
write('Donner un mot : ');
readln(ch);
until (verif(ch)) and (length(ch) in [1..120]);
end;

function occurrence(ch:string; c:char):integer;
var i,occ:integer;
begin
occ:=0;
for i:= 1 to length(ch) do
if c=ch[i] then occ:=occ+1;
occurrence:=occ;
end;

function cryptage(ch:string): string;
var i,j,k,r:integer;
    ch1:string;
begin
ch1:='';
for i:= 1 to length(ch) do
begin
k:=occurrence(ch,ch[i]);
if k mod 2= 0 then j:=k div 2
else j:= k * 2;
r:=ord(ch[i])+j;
if r>90 then r:=r-26;
ch1:=ch1+chr(r);
end;
cryptage:=ch1;
end;

begin
saisie(ch);
write('Le mot cryptée est : ',cryptage(ch));
end.
```

Correction proposée par
Mr Najeh SOUGUIR