

Corrigés Bac pratique Informatique

Sections Scientifiques(math, sciences et technique)

19 mai 2009 (9h, 10h30, 14h et 15h30) et 20 mai 2009 (10h30, 14h et 15h30)

Mardi 19 mai 2009 à 9h

```
program mardi19_05_2009_9h;
uses wincrt;
type
tab = array[1..30] of integer;
var
t, ts : tab;
n ,k : integer;
procedure saisie(var t : tab; var n : integer;var k : integer);
var
i : integer;
begin
repeat
write('donner n : ');
readln(n);
until n in [5..30] ;
for i:= 1 to n do
repeat
write('t[' ,i, ']:');
readln(t[i]);
until t[i]>0;
repeat
write('donner k : ');
readln(k);
until k in [2..n-1];
end;
function somme(t: tab; a : integer; b : integer) : integer;
var i,s : integer;
begin
s:= 0 ;
for i:= a to b do
s:= s+t[i];

somme := s ;
end;
procedure remplir(var ts : tab; t : tab; n : integer;k : integer);
var i : integer;
begin
for i:= 1 to n-k+1 do
begin
ts[i] := somme(t,i,k);
k:= k+1;
end;
end;
procedure affiche(ts : tab ; n : integer;k : integer);
var i : integer;
begin
for i:=1 to n-k+1 do
write(ts[i], ' ');
end;
begin
saisie(t,n,k);
remplir(ts,t,n,k);
affiche(ts,n,k);
end.
```

Correction proposée par
Mme Lamia & Mme Hana

```
program mardi19_05_2009_10h30;
uses wincrt;
type
tab = array[1..10] of string;
var
t : tab;
n : integer;

procedure saisie(var t : tab ; var n : integer);
var
i : integer;
begin
repeat
write('n = ');
readln(n);
until n in [2..30];
for i:= 1 to n do
repeat
write('t[' ,i, ']:');
readln(t[i]);
until length(t[i]) in [1..5];
end;

function formation(ch : string) : integer;
var
i,k ,e: integer;
mot : string;
begin
mot := '';
for i:= 1 to length(ch) do
if ch[i] in ['0'..'9'] then
mot := mot + ch[i];
val(mot,k,e);
formation := k;
end;

function somme(t:tab;n: integer) : integer;
var
s,i : integer;
begin
s:= 0 ;
for i:= 1 to n do
begin
s:=s + formation(t[i])
end;
somme := s;
end;

begin
saisie(t,n);
writeln('s=' , somme(t,n));
end.
```

```
program xx;
uses wincrt;
var res,ch:string;

procedure saisie(var ch:string);
var i:integer;
begin
  repeat
    readln(ch);
    i:=0;
    repeat
      i:=i+1;
    until not(uppercase(ch[i]) in ['A'..'Z']) or (i> length(ch));
  until (i>length(ch)) and (length(ch)in[1..50]);
end;
procedure construit (ch:string; var res:string);
var i:integer;
    chvoy1,chvoy2,chcons1,chcons2:string;
begin
  chvoy1:='';chvoy2:='';chcons1:='';chcons2:='';
  for i:= 1 to length(ch) do
    if uppercase(ch[i]) in ['A','E','I','U','Y','O'] then
      if uppercase(ch[i])=ch[i] then chvoy2:=chvoy2+ch[i]
      else chvoy1:= chvoy1 +ch[i]
    else if uppercase(ch[i])=ch[i] then chcons2:=chcons2+ch[i]
      else chcons1:= chcons1 +ch[i];
  res:=chcons2+chvoy2+chcons1+chvoy1;
end;

begin
  saisie(ch);
  construit(ch,res);
  write(res);
end.
```

```
program xx;
uses wincrt;
type
  tab=array[1..20]of char;
var t:tab;
n,d,m,i:integer;

procedure triB(var t:tab;d,f:integer);
var b:boolean;
  i:integer;
  aux:char;
begin
  repeat
    b:= false;
    for i:=d to f-1 do
      if t[i+1]<t[i] then begin b:=true;
                                aux:= t[i];
                                t[i]:=t[i+1];
                                t[i+1]:=aux;
                              end;
    f:=f-1;
  until (b=false)or(f=1);
end;

procedure saisie(var n:integer; var t:tab);
var i:integer;
begin
  repeat
    write('donner n: ');
    readln(n);
  until n in [6..20];

  writeln('donner t ');
  for i:=1 to n do
    repeat
      readln(t[i]);
    until t[i] in ['a'..'z'];
  end;
end;

procedure saisie2(n:integer;var d,m:integer);
begin
  writeln('donner d:');
  repeat
    readln(d);
  until (n mod d=0) and(d>1);
  m:= n div d;
end;

begin
  saisie(n,t);
  saisie2(n,d,m);
  write(d,' ',m);
  triB(t,1,d);
  for i:=1 to n do
    write(t[i],' ');
  end.
```

```
program TriangleH;
uses wincrt ;
var
  H:integer ;
procedure saisie ( var H:integer) ;
begin
  repeat
    write('donner la valeur de H : ');
    readln(H) ;
  until H in [5..10];
end;
procedure affiche_Ligne (d,f:integer);
var
  i: integer;
begin
  for i :=d to f do
    write('* ');
  end;
procedure affiche_Triangle(H:integer);
var
  i,j,l,k: integer;
begin
  l:=H;
  for i :=1 to H do
    begin
      affiche_Ligne(1,2*l-1);
      writeln;
      for k:=1 to i do
        write(' ');
      l:=l-1;
    end;
  end;
begin
  saisie (H);
  affiche_Triangle(H);
end .
```

```
program crypt; {20 mai 2009, 14h}
uses wincrt;
var
ch : string;
procedure saisie(var ch : string);
var
i : integer;
ok : boolean;
begin
repeat
write('donner ch : ');
readln(ch);
i:= 0;
repeat
i:=i+1;
ok := upcase(ch[i]) in ['A'..'Z'];
until (ok = false) or (i=length(ch));
until ok = true;
end;

function cryptage(ch : string) : string;
var
i,c : integer;
mot,k : string;
begin
i:= 1;
mot:='';
repeat
c:=1;
while (ch[i] = ch[i+1]) do
begin
c:=c+1;
i:=i+1;
end;

str(c,k);
mot:=mot+k+ch[i];
i:=i+1;
until i>length(ch);

cryptage:=mot;
end;

begin
saisie(ch);
writeln(cryptage(ch));
end.
```

```
program dessin;
uses wincrt ;
var
  L,C:integer; cd,pv:char;
procedure saisie(var L,C:integer;var cd,pv:char) ;
begin
  repeat
    write('donner L : ');
    readln(L);
    write('donner C : ');
    readln(C);
  until (L in [2..10]) and (C in [2..10]) and (L<>C);
  repeat
    write('donner le caractère de dessin : ');
    readln(cd);
  until (cd in ['X','+', '$','*']);
  repeat
    write('donner le choix du dessin : ');
    readln(pv);
  until (pv in ['P','V']);
end;
procedure affiche_Dessin(L,C:integer;cd,pv:char);
var
  i,j:integer;
begin
  if pv='P' then for i:=1 to L do
    begin
      for j:=1 to C do
        write(cd);
      writeln;
    end
  else for i:=1 to L do
    begin
      if (i=1) or (i=L) then
        begin
          for j:=1 to C do
            write(cd);
            writeln;
          end
        else begin
          write(cd);
          for j:=2 to c-1 do
            write(' ');
            write(cd);
            writeln;
          end;
        end;
    end;
end;
begin
  saisie(L,C,cd,pv);
  clrscr;
  affiche_Dessin(L,C,cd,pv);
end.
```