

CORRIGÉ

Interface graphique :

8 points

Programmation :

- | | |
|----------|------------------|
| 1. INIT | <u>2 points</u> |
| 2. FILL | <u>4 points</u> |
| 3. TRANS | <u>8 points</u> |
| 4. % | <u>4 points</u> |
| | <u>18 points</u> |

Vérification :

4 points

MAIN.PAS

```

1  unit main;
2  interface
3  uses
4    Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,
5    Dialogs, StdCtrls, Grids;
6  type
7    TForm1 = class(TForm)
8      sgDes: TStringGrid;
9      btnFill: TButton;
10     lbValeurs: TListBox;
11     lbAll: TListBox;
12     lbFreq: TListBox;
13     btnFreq: TButton;
14     btnInit: TButton;
15     btnTrans: TButton;
16     lblValeurs: TLabel;
17     lblFreq: TLabel;
18     procedure btnFillClick(Sender: TObject);
19     procedure btnFreqClick(Sender: TObject);
20     procedure btnInitClick(Sender: TObject);
21     procedure btnTransClick(Sender: TObject);
22   private
23     { Private declarations }
24   public
25     { Public declarations }
26   end;
27   var
28     Form1: TForm1;
29   implementation
30     {$R *.dfm}
31
32   function notinliste(element:string;liste:Tlistbox):boolean;
33   var i,max:integer;
34   begin
35     max:=liste.Count-1;
36     result:=true;
37     for i:=0 to max do if element=liste.Items[i]then result:=false;
38   end;
39

```

```
40 function frequence(element:string;liste:Tlistbox):integer;
41 var n,i,max:integer;
42 begin
43     n:=0;
44     max:=liste.Count-1;
45     for i:=0 to max do if element=liste.Items[i]then n:=n+1;
46     result:=n;
47 end;
48
49 procedure TForm1.btnInitClick(Sender:TObject);
50 var i:integer;
51 begin
52     for i:=1 to 6 do
53         begin
54             sgDes.Cells[i,0]:=IntToStr(i);
55             sgDes.Cells[0,i]:=IntToStr(i);
56         end;
57 end;
58
59 procedure TForm1.btnFillClick(Sender:TObject);
60 var i,j:integer;
61 begin
62     for i:=1 to 6 do
63         for j:=1 to 6 do
64             sgDes.Cells[i,j]:=FloatToStr(abs
65             (StrToFloat(sgDes.Cells[i,0]) - StrToFloat(sgDes.Cells[0,j])));
66         end;
67
68 procedure TForm1.btnTransClick(Sender:TObject);
69 var i,j:integer;cellule:string;
70 begin
71     lbAll.Clear;lbValeurs.Clear;
72     for i:=1 to 6 do
73         for j:=1 to 6 do
74             begin
75                 cellule:=sgDes.Cells[i,j];
76                 lbAll.Items.Append(cellule);
77                 if notinliste(cellule,lbValeurs)then lbValeurs.Items.Append(cellule);
78             end;
79 end;
80
81 procedure TForm1.btnFreqClick(Sender:TObject);
82 var i:integer;
83 begin
84     lbFreq.Clear;
85     for i:=0 to lbValeurs.Count-1 do
86         lbFreq.Items[i]:=IntToStr(100*frequence(lbValeurs.Items[i],lbAll)div lbAll.Count);
87 end;
88 end.
```