

**1B****Corrigé de la partie pratique**

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```
unit M12U;

interface

uses
  Windows, Messages, SysUtils, Variants, Classes, Graphics,
  Controls, Forms,
  Dialogs, StdCtrls, Grids;

type
  TForm1 = class(TForm)
    sgJeu: TStringGrid;
    btnReset: TButton;
    btnRand: TButton;
    btnInvert: TButton;
    btnMerge: TButton;
    Label1: TLabel;
    lblHist: TLabel;
    lbTemp: TListBox;
    procedure btnResetClick(Sender: TObject);
    procedure btnRandClick(Sender: TObject);
    procedure btnInvertClick(Sender: TObject);
    procedure btnMergeClick(Sender: TObject);
    procedure FormCreate(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  Form1: TForm1;

implementation

{$R *.dfm}

procedure TForm1.FormCreate(Sender: TObject);
var i:integer;
begin
  randomize;
  for i:=0 to 11 do sgJeu.Cells[i,0]:=inttostr(i+1)
end;

procedure TForm1.btnResetClick(Sender: TObject);
var i:integer;
begin
  for i:=0 to 11 do sgJeu.Cells[i,0]:=inttostr(i+1);
  lblHist.Caption:=''
end;
```

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procedure TForm1.btnRandClick(Sender: TObject);
var i,r:integer;
begin
  lbTemp.Clear;
  for i:=0 to 11 do lbTemp.Items[i]:=inttostr(i+1);
  for i:=0 to 11 do
    begin
      r:=random(lbTemp.Items.Count);
      sgJeu.Cells[i,0]:=lbTemp.Items[r];
      lbTemp.Items.Delete(r);
    end
end;

procedure TForm1.btnInvertClick(Sender: TObject);
var i,long:integer;
    hist:string;
begin
  lbTemp.Clear;
  for i:=0 to 11 do lbTemp.Items[i]:=sgJeu.Cells[i,0];
  for i:=0 to 11 do sgJeu.Cells[i,0]:=lbTemp.Items[11-i];
  hist:=lblHist.Caption;
  long:=length(hist);
  if (long>0) and (hist[long]='I') then delete(hist,long,1)
                                     else hist:=hist+'I';

  lblHist.Caption:=hist;
end;

procedure TForm1.btnMergeClick(Sender: TObject);
var i,long:integer;
    hist,last:string;
begin
  lbTemp.Clear;
  for i:=0 to 11 do lbTemp.Items[i]:=sgJeu.Cells[i,0];
  for i:=0 to 5 do begin
    sgJeu.Cells[2*i,0]:=lbTemp.Items[i];
    sgJeu.Cells[2*i+1,0]:=lbTemp.Items[11-i]
  end;
  hist:=lblHist.Caption;
  long:=length(hist);
  if (long=0) or (hist[long]='I') then hist:=hist+'M'
  else if hist[long]='M' then hist:=hist+'2'
       else if hist[long]='0' then delete(hist,long-2,3)
       else begin
         last:=hist[long];
         delete(hist,long,1);
         last:=inttostr(strtoint(last)+1);
         hist:=hist+last
       end;
  lblHist.Caption:=hist;
end;

end.

```