

ECE2 : T.D. d'informatique n°1 : Correction

Exercice 1

```
program eml2010;
var u : real;
    n : integer;
begin
  u := 1; n := 0;
  repeat
    n := n + 1;
    u := u - ln(1+u*u);
  until u<1E-3;
  writeln('n vaut ',n);
  readln;
end.
On trouve n = 993
```

Exercice 2

```
program eml2009;
var n:integer;
    u:real;
begin
  n:=0;u:=1;
  repeat
    n:=n+1;
    if u<>0 then u:=u/(exp(u)-1)
      else u:=1;
  until abs(u-ln(2))<1E-9;
  writeln('n vaut ',n);
  readln;
end.
On trouve n = 21
```

Exercice 3

```
Function f(n:integer):integer;
var temp, u, v, k :integer;
Begin
  u := 0; v := 1;
  for k:=1 to n-1 do
  begin
    temp := v; v := u + v; u := temp;
  end;
  f := v;
end;
```