

Corrigés Bac Pratique Informatique

Section S.I.

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Program Suit_Min;

Uses wincrt;

Type

Suit= record

 dep,Nb: word ;

end;

Fsuit = file of Suit ;

Fdep = file of word;

Var

fd:fdep;

fs:fsuit;

Procedure creation(var fd:fdep ; var fs:fsuit);

begin

assign (fd,'c:\bac2015\depart.dat');

rewrite(fd);

assign (fs,'c:\bac2015\suite.dat');

rewrite(fs);

end;

Function nbterme(u:word):word;

var nb:word;

begin

nb:=0;

Repeat

 if u mod 2=0 then

 u:=u div 2

 else u:=3*u + 1;

 inc(nb);

 Until u=1;

nbterme:=nb;

end;

Procedure remplir_depart(var fd:fdep);

var i,u0,p : word;

begin

reset(fd);

Repeat

 write('P='); readln(p);

Until P in[2..30];

```
For i:=1 to p do
begin
repeat
  readln(u0);
until (u0<=1000) and (u0>=2);
write(fd,u0);
end;
Close(fd);
end;
```

```
Procedure remplir_suit(var fd:fdep ; var fs:fsuit);
var i : word;
  st:suit;
begin
reset(fd);
reset(fs);
while not eof(fd) do { ou For i:=1 to p do}
begin
  read(fd,st.dep);
  st.nb:= nbterme(st.dep);
  write(fs,st);
end;
Close(fs);
Close(fd);
end;
```

```
Procedure affiche (var fs:fsuit); { non demandé !}
var st:suit;
begin
reset(fs);
while not eof(fs) do
begin
  read(fs,st);
  Writeln('U0=',st.dep,' -----> NB=',st.nb);
end;
Close(fs);
end;
```

```
Procedure affich_min(var fs:fsuit);
var st:suit;
  min:word;
begin
reset(fs);
read(fs,st);
min:=st.nb;
while not eof(fs) do
begin
  read(fs,st);
  if st.nb<min then
    min:=st.nb
  end;
  seek(fs,0);
  Write('Terme(s) :');
```

```
while not(eof(fs)) do
begin
read(fs,st);
if st.nb=min then
  Write(st.dep:5);
end;
Close(fs);
end;
```

```
BEGIN
creation(fd,fs);
remplir_depart(fd);
remplir_suit(fd,fs);
affiche(fs);
writeln;
affich_min(fs);
END.
```