Nom : ..... Prénom : .....

2B1 Corrigé du devoir d'informatique I,1 1.12.2014

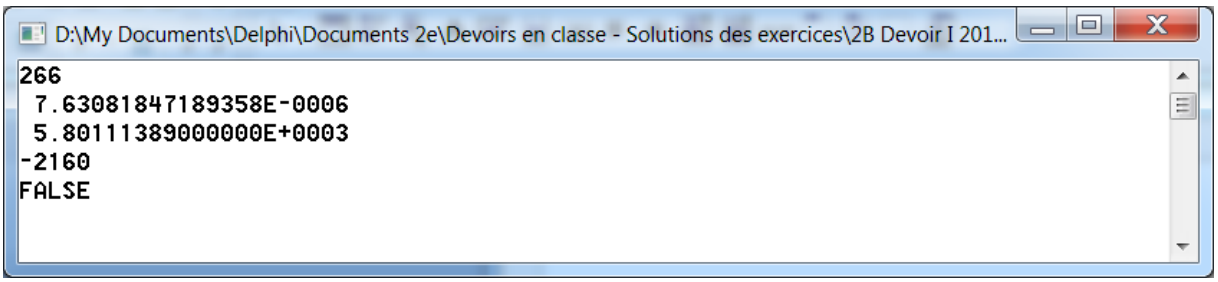
Question 1

```
program question1;

{$APPTYPE CONSOLE}

uses
  SysUtils,Math;

begin
{a}   writeln(2000 mod sqr(17));       //integer
{b}   writeln(sqrt(3)/(61*sqr(61)));  //extended ou real
{c}   writeln(4.147*(499.07+899.8)); //extended ou real
{d}   writeln(19-ceil(53.27*40.89)); //integer
{e}   writeln((3<5) and (7>9));       //boolean
      readln
end.
```



Question 2

(1) Pas de ; avant else ! Donc :

```
if a>=b then begin a:=20-b; b:=40+a end
        else begin a:=40-b; b:=10+a end;
```

(2) Tableau d'exécution du programme `exercice`

a	*b*
16	/
16	80
30	30
-10	30

Question 3

```
program equ2edegre;

{$APPTYPE CONSOLE}
```

```
uses
  SysUtils;

var a,b,c,delta:extended;

begin
  writeln('Equation a*x^2+b*x+c=0');
  write('Entrez les coefficients a, b et c : ');
  readln(a,b,c);
  if a=0 then writeln('Cette equation n''est pas du 2e degre')
  else begin
         delta:=sqr(b)-4*a*c;
         if delta>0 then writeln('Cette equation a 2 solutions
distinctes')
           else if delta=0 then writeln('Cette equation a 1
solution')
                  else writeln('Cette equation n''a pas de
solution')
       end;
  readln
end.
```

Question 4

```
program Suites;

{$APPTYPE CONSOLE}

uses
  SysUtils;

var i,n,a,b,temp:integer;

begin
//1  (3 points)
  for i:=10 downto 1 do write(2000+100*i:6);writeln;
//2  (3 points)
  for i:=0 to 9 do write(6+7*i:6);writeln;
//3  (4 points)
  n:=1;
  for i:=1 to 10 do
    begin
      write(n:6); n:=n*3
    end;
  writeln;
//4  (4 points)
  n:=20;
  for i:=1 to 5 do
    begin
      n:=n-5; write(n:6);
      n:=n+20; write(n:6)
    end;
  writeln;
```

```
  readln
end.
```

Question 5 — 12 points

```
program Rectangle;

{$APPTYPE CONSOLE}

uses
  SysUtils;

var larg,haut,i,j:integer;

begin
  write('Entrez la largueur : '); readln(larg);
  write('Entrez la hauteur : '); readln(haut);
  for i:=1 to larg do write('*'); writeln;
  for j:=1 to haut-2 do
    begin
      write('*');
      for i:=1 to larg -2 do write(' ');
      writeln('*');
    end;
  for i:=1 to larg do write('*'); writeln;
  readln;
end.
```

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