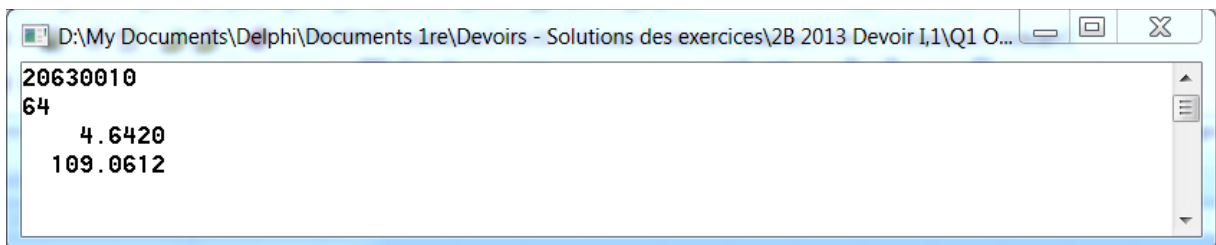


Question 1

```
writeln(570*(sqr(183)+sqr(52)));  
writeln(2*(2013 mod 143) +3*(2013 div 143));  
writeln(sqrt(19+8/3.14):10:4);  
writeln(sqr(sqr(5))-sqr(159/7):10:4);  
readln
```

Voici les résultats (pas demandés) :

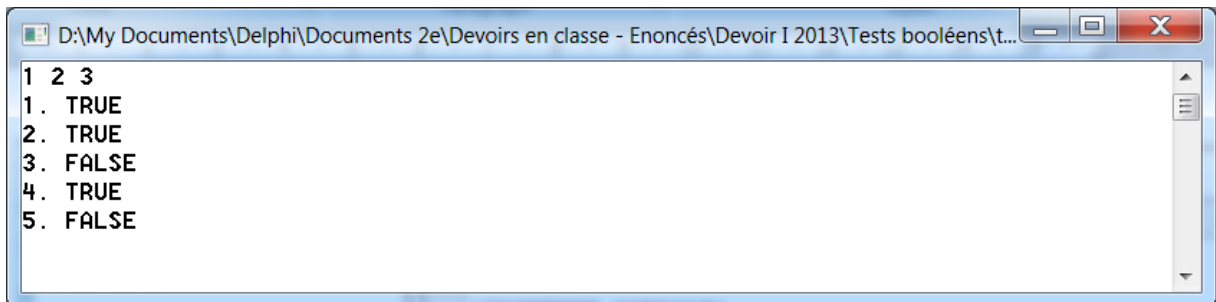


```
D:\My Documents\Delphi\Documents 1re\Devoirs - Solutions des exercices\2B 2013 Devoir I,1\Q1 O...  
20630010  
64  
 4.6420  
109.0612
```

Question 2

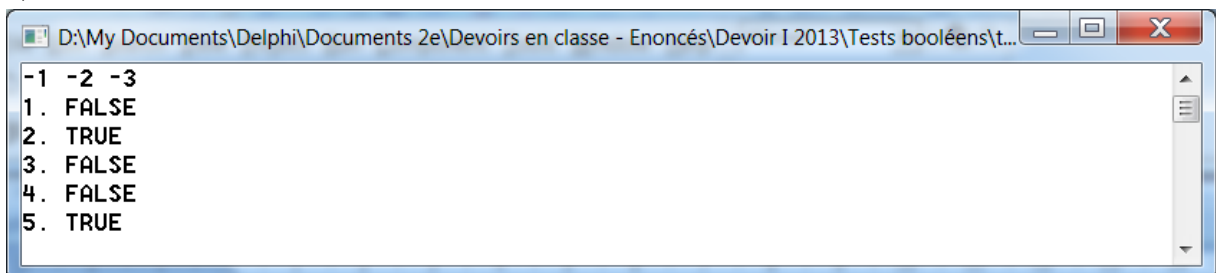
8 points

a)



```
D:\My Documents\Delphi\Documents 2e\Devoirs en classe - Enoncés\Devoir I 2013\Tests booléens\t...  
1 2 3  
1. TRUE  
2. TRUE  
3. FALSE  
4. TRUE  
5. FALSE
```

b)



```
D:\My Documents\Delphi\Documents 2e\Devoirs en classe - Enoncés\Devoir I 2013\Tests booléens\t...  
-1 -2 -3  
1. FALSE  
2. TRUE  
3. FALSE  
4. FALSE  
5. TRUE
```

Question 3

```
program equationPremierDegre ;

{$APPTYPE CONSOLE}

uses
  SysUtils;

var a,b,c,d,x:extended;

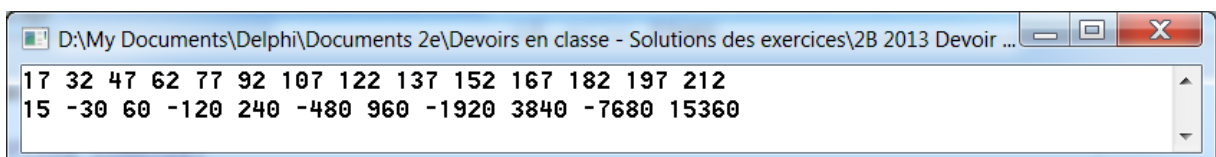
begin
  writeln('Resolution de l''equation a*x+b=c*x+d') ;
  write('Donner le coefficient a : ') ; readln(a) ;
  write('Donner le coefficient b : ') ; readln(b) ;
  write('Donner le coefficient c : ') ; readln(c) ;
  write('Donner le coefficient d : ') ; readln(d) ;
  if a<>c then
    begin
      x := (d-b)/(a-c) ;
      writeln('L''equation a une solution unique : ',x:3:4) ;
    end
  else if b=d then
    writeln('Tous les reels sont solutions de l''equation')
  else writeln('L''equation n''a pas de solution');
  readln ;
end.
```

Question 4

- 1)

```
for i:=1 to 14 do write(15*i+2:5);
```
- 2)

```
a:=15;
for i:=1 to 11 do begin
  write(a,' ');
  a:=a*(-2);
end;
```



```
D:\My Documents\Delphi\Documents 2e\Devoirs en classe - Solutions des exercices\2B 2013 Devoir ...
17 32 47 62 77 92 107 122 137 152 167 182 197 212
15 -30 60 -120 240 -480 960 -1920 3840 -7680 15360
```

Question 5

```
program TableMult;
{$APPTYPE CONSOLE}
uses
  SysUtils;
var n,j,i:integer;
begin
  write('Entrez un entier non nul n: '); readln(n);
  writeln;
  for i:=1 to n do
    begin
      for j:=1 to n do write(i*j:4);
      writeln
    end;
  readln;
end.
```

Question 6

```
program drapeau;

{$APPTYPE CONSOLE}

uses
  SysUtils;

var i,j,n:integer;
begin
  write('Entrez un entier naturel n: '); readln(n);
  writeln;
  for i:=0 to n-1 do
    begin
      for j:=1 to i do write(' ');
      for j:=1 to 2*n-i do write('*');
      writeln;
    end;
  for i:=n-2 downto 0 do
    begin
      for j:=1 to i do write(' ');
      for j:=1 to 2*n-i do write('*');
      writeln;
    end;
  readln
end.
```