Exercice 1 :

```
int t = 500;
int t2 = 100 ;

void a()
{
  for (int i=0; i<3; i++){
    for(int j = 4; j<=9; j++)
      digitalWrite(j, HIGH);
    delay(t);

    for(int j = 4; j<=9; j++)
      digitalWrite(j, LOW);
    delay(t);

  }
}

void b()
{
  for (int i=0; i<3; i++){
    for(int j = 4; j<=9; j++)
    {
      digitalWrite(j, HIGH);
      delay(t);
      digitalWrite(j, LOW);
      delay(t);
    }
  }
  for (int i=0; i<3; i++){
    for(int j = 9; j>=4; j--)
    {
      digitalWrite(j, HIGH);
      delay(t);
      digitalWrite(j, LOW);
      delay(t);
    }
  }
}

void c()
{
  for (int i=0; i<3; i++){
    for(int j = 4; j<=9; j++)
    {
      digitalWrite(j, HIGH);
      delay(t);
    }
    for(int j = 4; j<=9; j++)
    {
      digitalWrite(j, LOW);
      delay(t);
    }
  }
  for (int i=0; i<3; i++){
    for(int j = 9; j>=4; j--)
    {
      digitalWrite(j, HIGH);
      delay(t);
    }
    for(int j = 9; j>=4; j--)
    {
      digitalWrite(j, LOW);
      delay(t);
    }
  }
```

```
}

void d()
{
  for (int i=0; i<3; i++)
  {
    for(int j = 4; j<=9; j++)
      digitalWrite(j, HIGH);
    delay(t);

    for(int j = 4; j<=9; j++)
      digitalWrite(j, LOW);
    delay(t);
    for (int i=0; i<4; i++) {
      for(int j = 4; j<=9; j++)
        digitalWrite(j, HIGH);
      delay(t2);
      for(int j = 4; j<=9; j++)
        digitalWrite(j,LOW);
      delay(t2);
    }

  }
}

void e()
{
  for (int i=0; i<3; i++)
  {
    for (int j=4; j<7; j++)
    {
      digitalWrite(j, HIGH);
      digitalWrite(13-j, HIGH);
      delay(t);
    }
    for (int i=0; i<4; i++) {
      for(int j = 6; j<=7; j++)
        digitalWrite(j, HIGH);
      delay(t2);
      for(int j = 6; j<=7; j++)
        digitalWrite(j,LOW);
      delay(t2);
    }
    for (int j=6; j>=4; j--)
    {
      digitalWrite(j, LOW);
      digitalWrite(13-j, LOW);
      delay(t);
    }
  }

}
void setup() {

  for(int i = 4; i<=9; i++)
  {
    pinMode(i, OUTPUT);
  }
}

void loop() {
  a();
  b();
  c();
  d();
  e();
}
```