

Exercice 1

1. (a)

```
import math as m
def somme_1(n):
    s = 0
    for k in range(2, n+6):
        s = s + k * (-m.sqrt(2)) ** (n-k)
    return s
```

(s)

somme_1(s)

2.

(a)

```
def somme_2(n):
    s = 0
    for k in range(n+1):
        s = s + k ** 3
    return s
```

(s)

```
def test(n):
    return somme_2(n) == (n*(n+1)/2) ** 2
```