DS3 - Informatique
Corrigé - 13/11/2024

Exercice 1

1.

```
import math as m
def somme(n):
    S = 0
    for k in range(3, n+6):
        S = S + m.log(k**k/(k+m))
    return S
```

2.

(a)

```
def bernoulli(a,b,n):
    S = 0
    for k in range(n+1):
        S = S + (a**k) * b**(n-k)
    return S
```

(b) `(m.pi - m.sqrt(6)) * bernoulli(m.pi, m.sqrt(6), 4)`

(c) C'est ... `bernoulli(b, a, n)`

(d)

```
def test(a,b,n):
    S = bernoulli(a,b,n)
    return (a-b)*S == a**(n+1) - b**(n+1)
```