CHAPITRE 4 : Les Tableaux

SERIE 1 :

CORRECTION :

Exercice 1 :

```
from numpy import *


N = int(input('Taper N = '))
while not (3 <= N <= 30):
    N = int(input('Taper N (entre 5 et 30) = '))

T = array([float] * N)


for i in range(N):
    T[i] = float(input("Entrer T[" + str(i) + "]: "))
    while not (0 <= T[i] <= 20):
        T[i] = float(input("Entrer T[" + str(i) + "]: "))

S = 0
for i in range (N) :
    S = S + T[i]
Moyenne = S / N


print('Somme =', S)
print("Moyenne = " , Moyenne)
```

Exercice 2 :

```
from numpy import *

N = int(input('Taper N = '))

while not (5 <= N <= 30):
    N = int(input('Taper N = '))

T = array([int] * N)

for i in range(N):
    T[i] = int(input('T[' + str(i) + ']='))

    while not (T[i] >= 0):
        T[i] = int(input('T[' + str(i) + ']='))

Max = T[0]

for i in range(N):
    if T[i] > Max:
        Max = T[i]
```

```
Min = T[0]

for i in range(N):
    if T[i] < Min:
        Min = T[i]

print('Max =', Max)
print('Min =', Min)
```

Exercice 3 :

```
from numpy import *

N = int(input('Taper N = '))

while not (3 <= N <= 20):
    N = int(input('Taper N = '))

T = array([str] * N)

for i in range(N):
    T[i] = input('T[' + str(i) + ']=')

    while not ('A' <= T[i][0] <= 'Z' and T[i][len(T[i]) - 1] == '#' and len(T[i]) > 3):
        T[i] = input('T[' + str(i) + ']=')

code = input('Taper code=')

while not ('A' <= code[0] <= 'z' and code[len(code) - 1] == '#' and len(code) >= 3):
    code = input('Taper code=')

i, test = 0, False

while i < N and not test:
    if code == T[i]:
        test = True
    else:
        i = i + 1

if test:
    print(code, 'existe dans T')
else:
    print(code, 'n\'existe pas')
```

Exercice 4 :

```
from numpy import *

N = int(input('Taper N = '))

while not (5 <= N <= 30):
    N = int(input('Taper N = '))

T = array([int] * N)

for i in range(N):
    T[i] = int(input('T[' + str(i) + ']='))
```

```
    while not (T[i] >= 0):
        T[i] = int(input('T[' + str(i) + ']=!'))

print('Les nombres réguliers sont :')

for i in range(N):
    ch = str(T[i])

    if int(ch[0]) % 2 == 1 and int(ch[len(ch) - 1]) % 2 == 1:
        print(T[i])
```