

## 🌿 Représentation des données : les tableaux 🌿

## Test Python Console

```
1 >>> var = 1 + 1
2 >>> var
3 2
```

Test ceci va-t-il fonctionner?

## Recopier une liste

```
1 from math import *
2
3 def recopie(t):
4     n = len(t)
5     tc = []*n
6     for i in range(n):
7         tc[i] = t[i]
8     return tc
9
10 t = [4, 5, 8, 7]
11 print('Tableau original', t)
12 print('Tableau recopié', recopie(t))
```

## Output

```
1 Traceback (most recent call last):
2   File "py_default_default.py", line 12, in <module>
3     print('Tableau recopié', recopie(t))
4   File "py_default_default.py", line 7, in recopie
5     tc[i] = t[i]
6 IndexError: list assignment index out of range
```

## Recopier une liste - v2

```
1 from math import *
2
3 def recopie(t):
4     n = len(t)
5     tc = [0]*n
6     for i in range(n):
7         tc[i] = t[i]
8     return tc
9
10 t = [4, 5, 8, 7]
```

```
11 print('Tableau original', t)
12 print('Tableau recopié', recopie(t))
```

Output:?? PythonTeX??? PythonTeX??

Console Python

```
1 >>> print(t)
2 Traceback (most recent call last):
3   File "<stdin>", line 1, in <module>
4 NameError: name 't' is not defined
```

Here is an example of some functions : Here is foo :

Code source

```
1 def foo(x):
2     return 2*x
```

Source Code

```
1 def foobar(x):
2     return foo(foo(x))
```

Code source

```
1 def foo(x):
2     return 2*x
```

Console Python

```
1 >>> foo(10)
2 20
3 >>> foobar(10)
4 40
5 >>> foobar(foo(12))
6 96
7 >>> t
8 Traceback (most recent call last):
9   File "<stdin>", line 1, in <module>
10 NameError: name 't' is not defined
```

Output

?? PythonTeX??

Code source

```
1 from math import *
2
3 def recopie2(t):
4     n = len(t)
5     tc = []*n
6     for i in range(n):
7         tc[i] = t[i]
8     return tc
9
10 t2 = [4, 5, 8, 7]
11 tc2 = recopie2(t2)
12 #print(recopie(t))
```

```
1 >>> print(t2)
2 [4, 5, 8, 7]
3 >>> print(tc2)
4 Traceback (most recent call last):
5   File "<stdin>", line 1, in <module>
6 NameError: name 'tc2' is not defined
```