

```
def moyenne(tab: list):
    assert tab != [], 'erreur'

    n = len(tab)
    somme = 0
    for i in range(n):
        somme += tab[i]
    return somme / n

print(moyenne([5, 3, 8]))
print(moyenne([1, 2, 3, 4, 5, 6, 7, 8, 9, 10]))
# print(moyenne([]))

import unittest

class validation(unittest.TestCase):
    def test_assertion(self):
        self.assertRaises(AssertionError, moyenne, [])

    def test1(self):
        self.assertEqual(moyenne([1, 2, 3, 4, 5, 6, 7, 8, 9, 10]), 5.5)

    def test2(self):
        self.assertEqual(moyenne([5, 3, 8]), (5+3+8)/3)

    def test_alea(self):
        def moyenne_sol(tab: list):
            n = len(tab)
            somme = 0
            for i in range(n):
                somme += tab[i]
            return somme / n

        from random import randint
        for i in range(1, 100):
            tab = [randint(-100, 100) for _ in range(i)]
            self.assertEqual(moyenne(tab), moyenne_sol(tab))

# unittest.main()

moyenne([])
```