Les nombres d'Armstrong à trois chiffres

In [3]:
```python
#1 Méthode brute

def Armstrong1():
    for c in range(1,10):
        for d in range(10):
            for u in range(10):
                if c*100 + d*10 + u == c**3 + d**3 + u**3:
                    print(c*100 + d*10 + u, end=" ")
```

In [4]:
```python
Armstrong1()
```

153 370 371 407

In [5]:
```python
#2 Méthode de décomposition

def unite(n): return n%10

def dizaine(n): return unite(n//10)

def centaine(n): return unite(n//100)
```

In [6]:
```python
centaine(1235)
```

Out[6]: 2

In [7]:
```python
unite(1235)
```

Out[7]: 5

In [8]: `dizaine(1235)`

Out[8]: 3

In [9]:
```python
def Armstrong2():
    return [n for n in range(100,1000) if n == unite(n)**3 + dizaine(n)**3+centaine(n)**3]
```

In [10]: `Armstrong2()`

Out[10]: `[153, 370, 371, 407]`

In [ ]:

In [ ]: