

# Infija a prefija

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## Captura

```
Luan@Tux:~/Coding/unach-data-python$ cd /home/luan/Coding/unach-data-python ; /usr/bin/env /bin/python3 /home/luan/.vscode/extensions/ms-python.python-2022.4.1/pythonFiles/lib/python/debugpy/launcher 39133 -- /home/luan/Coding/unach-data-python/infija_prefija.py
['+', '/', '*', '3', '4', '3', '1']
Luan@Tux:~/Coding/unach-data-python$
```

## Código

```
def ValorA(i):
    for j in range(len(Expresion1)):
        if Expresion1[j][0] == i:
            return Expresion1[j][1]

def ValorB(i):
    for j in range(len(Expresion2)):
        if Expresion2[j][0] == Pila.top():
            return Expresion2[j][1]

def vaciar():
    for k in range(Pila.size()):
        temp = Pila.desapilar()
        if temp != '(' and temp != ')':
            Prefija.append(temp)

Pila = Stack()
vA = 0
vB = 0
Prefija = ([])
Expresion1 = (['+', 1], ['-', 1], ['*', 2], ['/', 2], ['**', 4], ['(', 5])
Expresion2 = (['(', 0], ['+', 1], ['-', 1], ['/', 2],
              ['*', 2], ['**', 3], [')', 6])

Infija = ([])
Infija.extend("3*4/(3+1)")

for i in reversed(Infija):
    if i == '+' or i == '-' or i == '*' or i == '/' or i == '(' or i == ')':
        if i != ')':
            if Pila.esta_vacia():
```

```
        Pila.apilar(i)
    else:
        vA = ValorA(i)
        vB = ValorB(Pila.top())
        if vA >= vB:
            Pila.apilar(i)
        elif vA < vB:
            Prefija.append(Pila.desapilar())
            Pila.apilar(i)
    else:
        Prefija.append(i)
if not Pila.esta_vacia():
    vaciar()
print(list(reversed(Prefija)))
```