

3

a)

```
def ins(e, ls):
```

```
    yield [e, *ls]
```

```
    if ls:
```

```
        for i in ins(e, ls[1:]):
```

```
            yield [ls[0], *i]
```

```
for i in ins(0, [1, 2, 3]):
```

```
    print i
```

Imprime

[0, 1, 2, 3], [1, 0, 2, 3], [1, 2, 0, 3]

[1, 2, 3, 0]

global

ins proc

i = [0, 1, 2, 3], [1, 0, 2, 3], [1, 2, 0, 3], [1, 2, 3, 0]

pc 48 48 48 48 45

	14 ls []
ins	13 e 0
	12 pc 0
	11 i [0]
	10 ls [3]
ins	9 e 0
	8 pc 0 2 3 2
	7 i [0, 3], [3, 0]
	6 ls [3, 3]
ins	5 e 0
	4 pc 0 2 3 2 3 2
	3 i [0, 3, 3], [2, 0, 3], [3, 3, 0]
	2 ls [1, 3, 3]
ins	1 e 0
	0 pc 0 2 3 2 3 2 3 2