```python
def print_boolean(func):
  print(func('verdadeiro')('falso'))

V = lambda x : lambda y: x

F = lambda x : lambda y: y

NEG = lambda p: p(F)(V)

XOR = lambda p: lambda q: p(NEG(q))(q)  # XOR em lambda termos

print_boolean(XOR(F)(F))
print_boolean(XOR(F)(V))
print_boolean(XOR(V)(F))
print_boolean(XOR(V)(V))
```

```
falso
verdadeiro
verdadeiro
falso
```

$NEG := \lambda p.\, p\, F\, V$

$XOR := \lambda pq.\, p\, (NEGq)\, q$

- $(\lambda pq.\, p\, (NEGq)\, q)\; F\; F \rhd F(NEGq)F \rhd F\, V\, F \rhd F$
- $(\lambda pq.\, p\, (NEGq)\, q)\; F\; V \rhd F(NEGq)V \rhd F\, F\, V \rhd V$
- $(\lambda pq.\, p\, (NEGq)\, q)\; V\; F \rhd V(NEGq)F \rhd V\, V\, F \rhd V$
- $(\lambda pq.\, p\, (NEGq)\, q)\; V\; V \rhd V(NEGq)F \rhd V\, F\, V \rhd F$