Another example

```
def square(x):
    return x*x

def twoPower(x, n):
    while n > 1:
        x = square(x)
        n = n/2
    return x
```

Let's try it out

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def square(x):
    return x*x

def twoPower(x, n):
    while n > 1:
        x = square(x)
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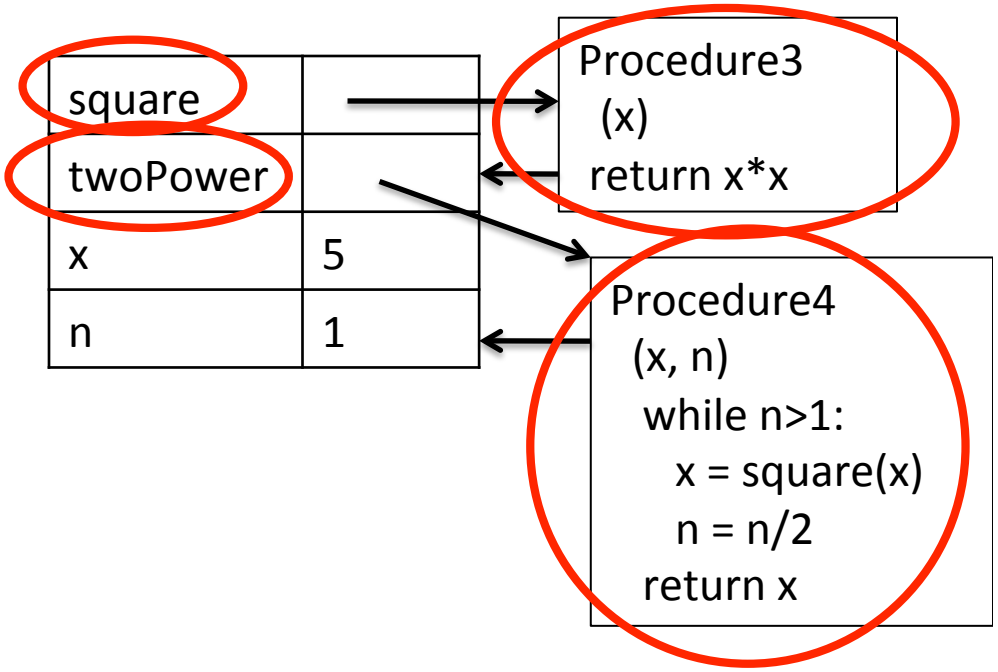
x = 5
n = 1
print(twoPower(2,8))
```



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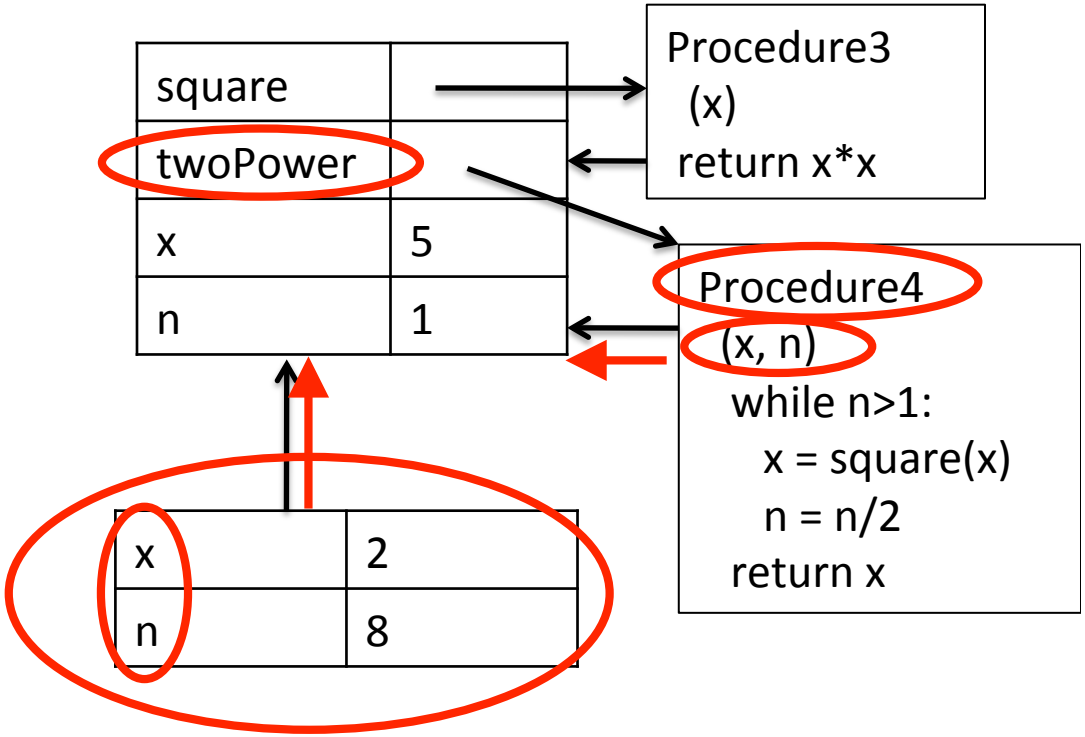

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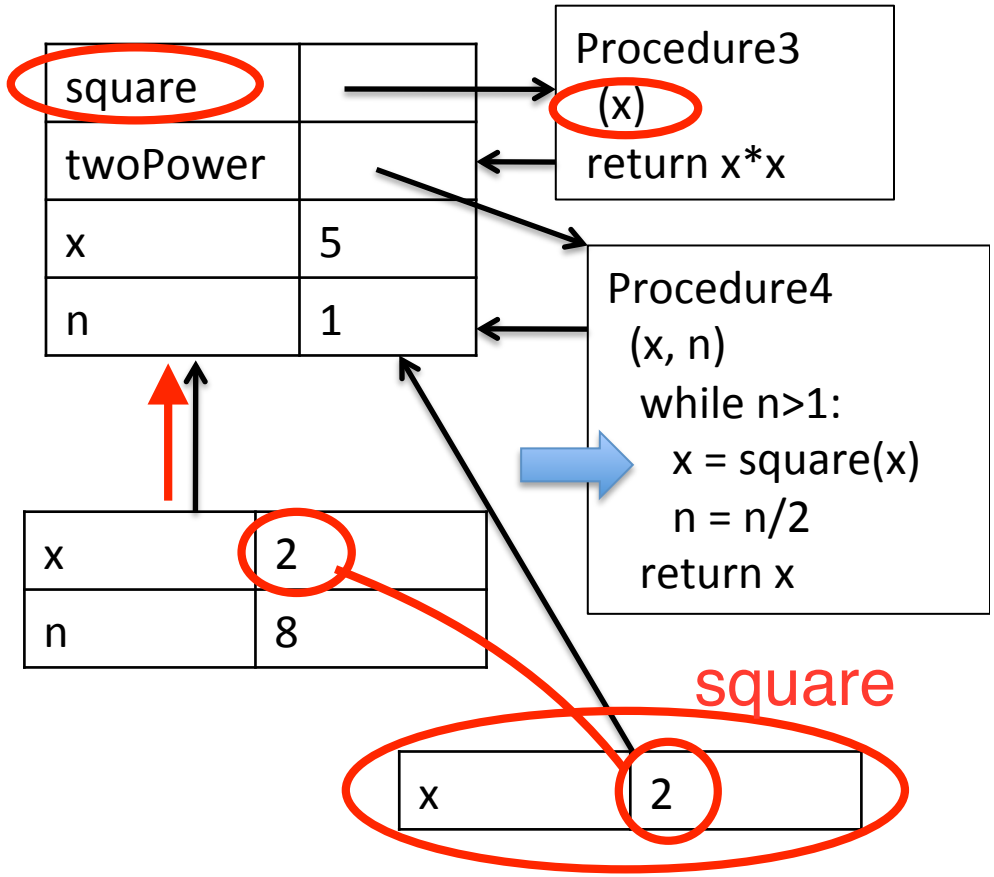

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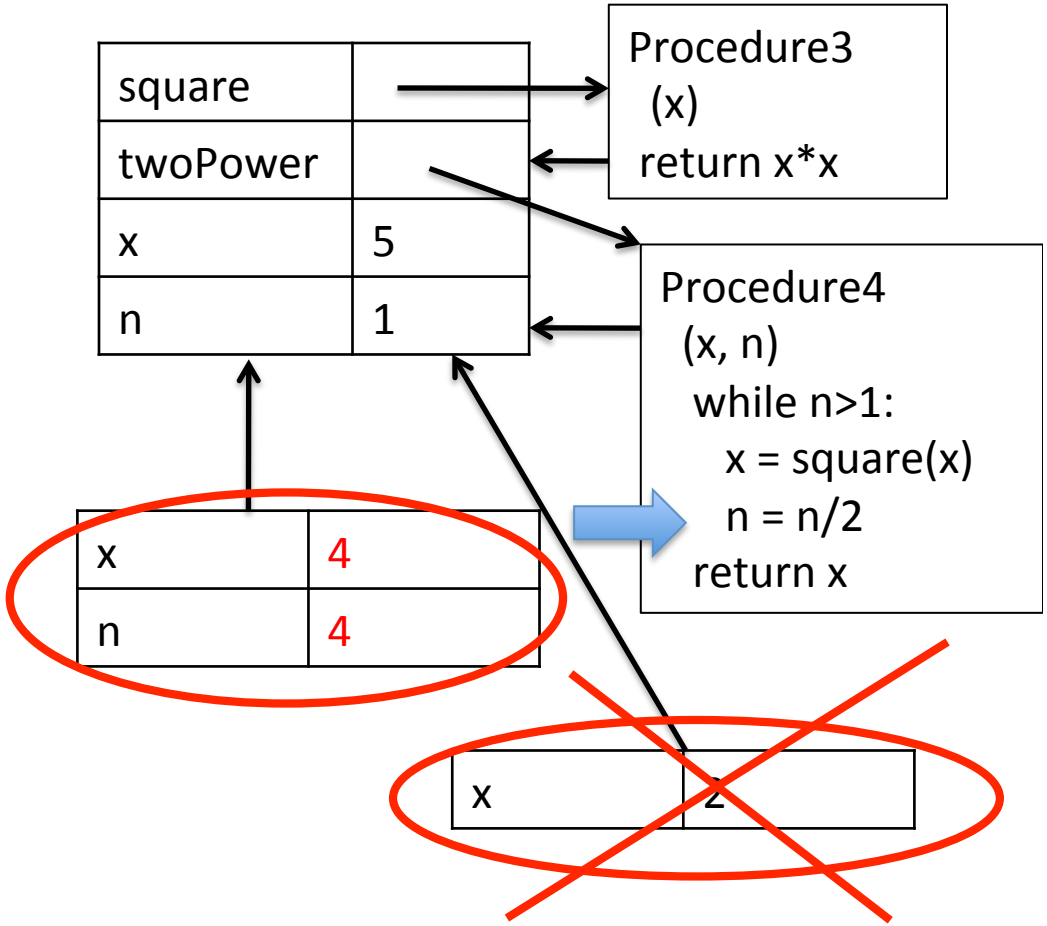

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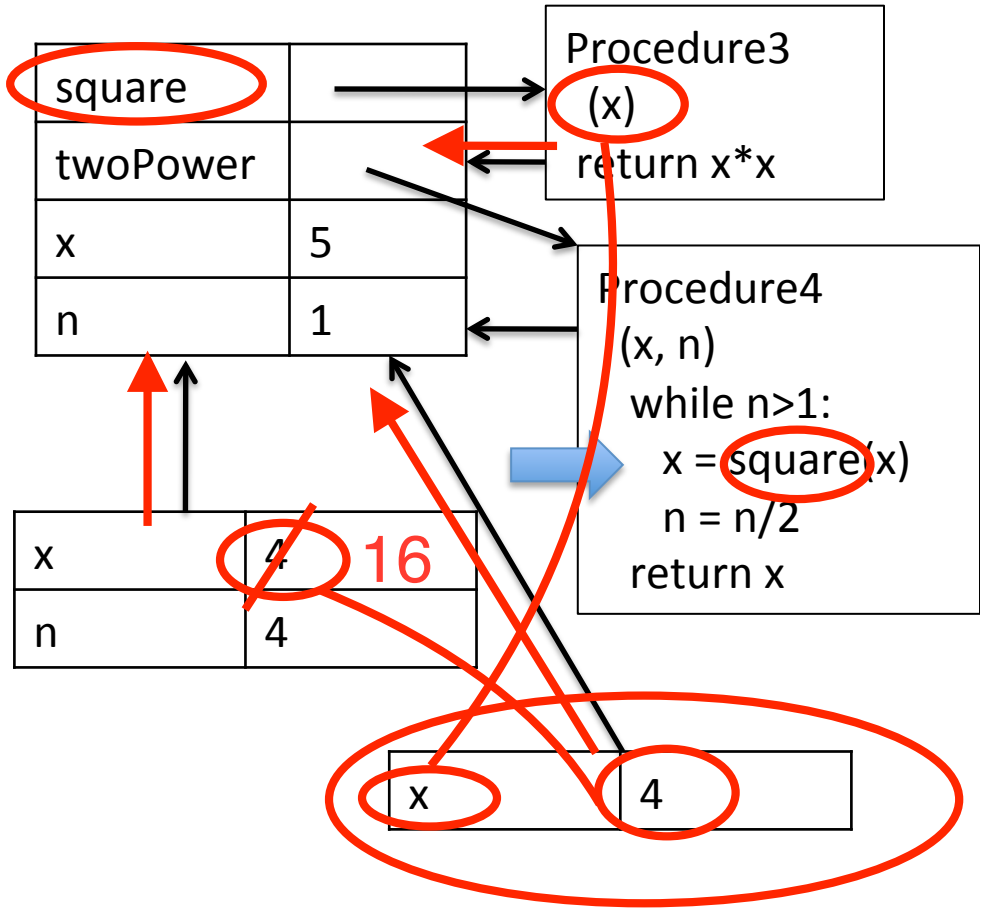

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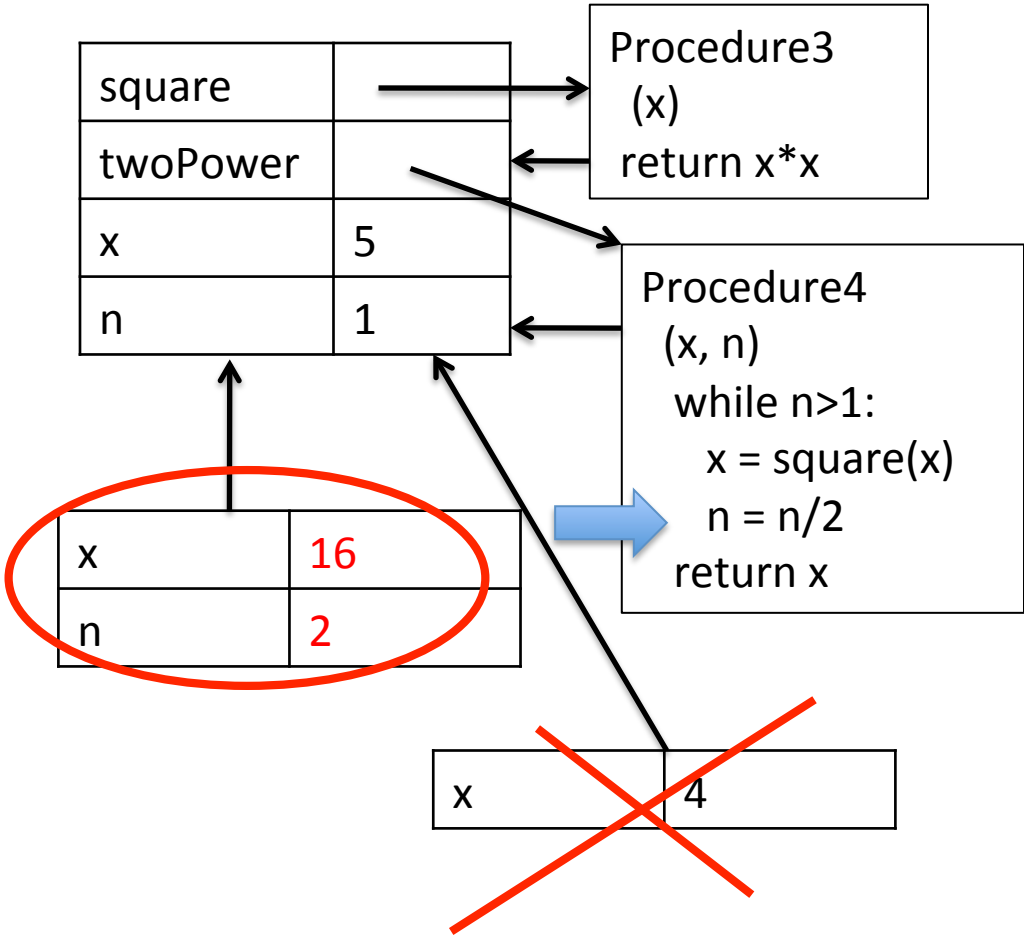

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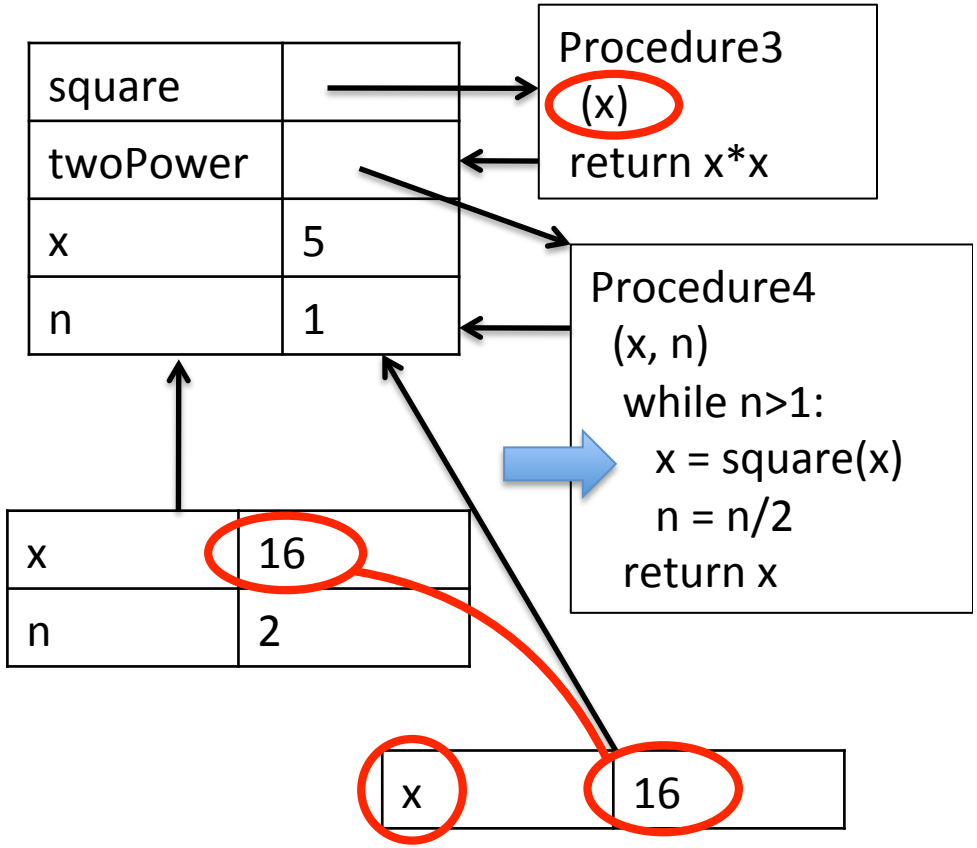

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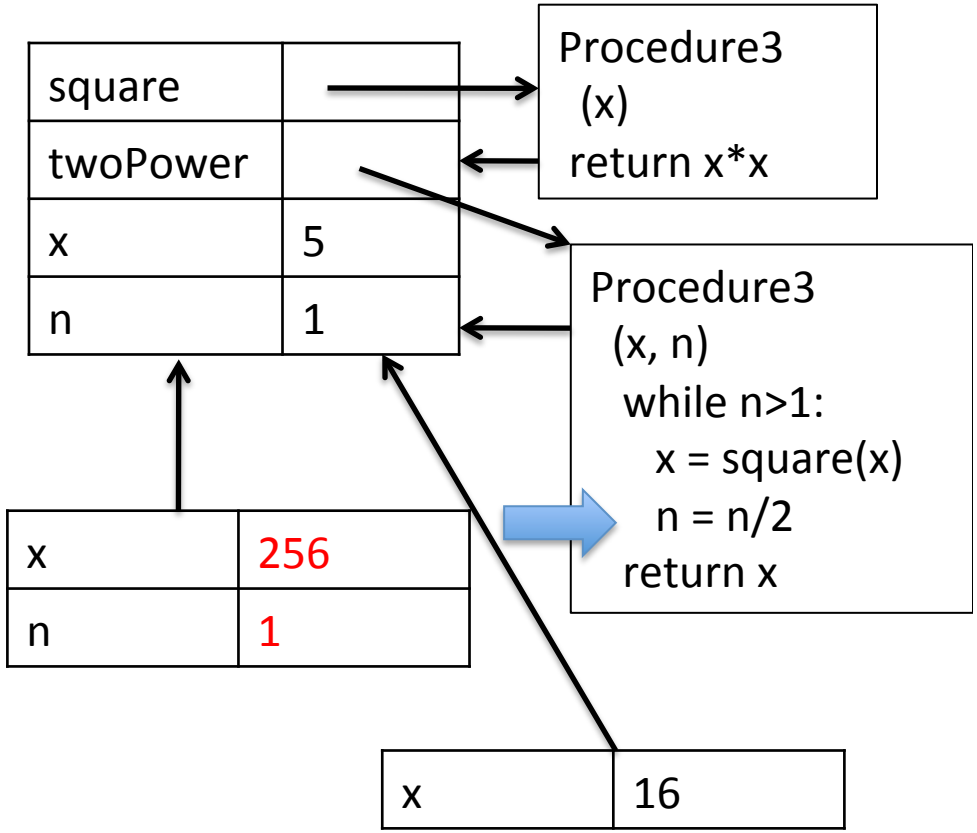

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256
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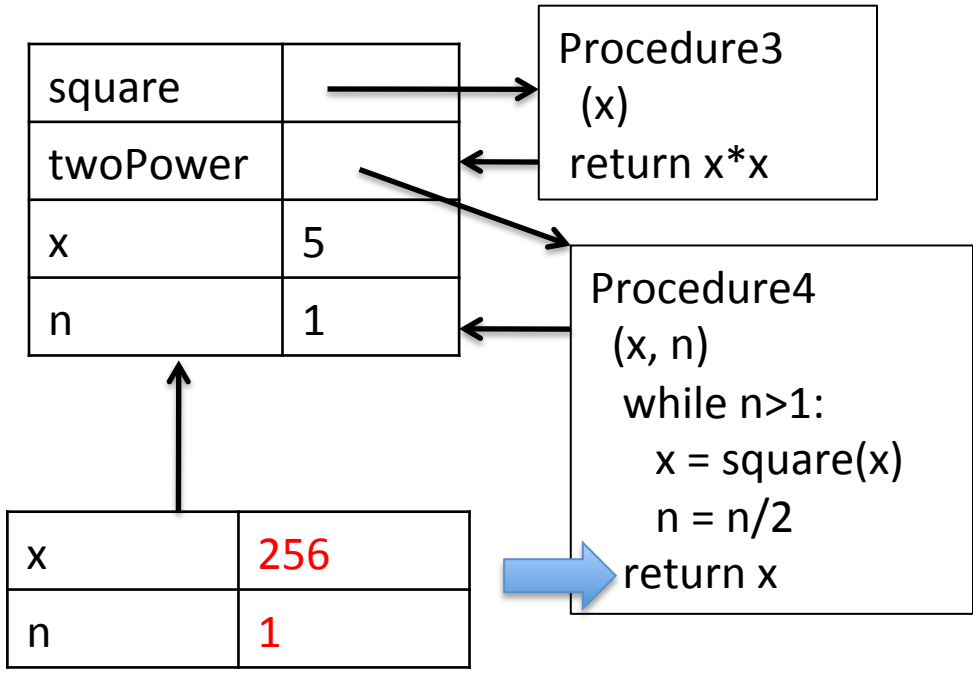

Some observations

Same variable in different procedures

- Notice how each call to square created a new frame, with a local binding for x
- The value of x in the global environment was never confused with values within frames from function calls
- The value of x used by the call to square is different from the binding for x in the call to twoPower
- The rules we described can be followed mechanically to determine scoping of variables