

CS61A Lecture 2

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January 25, 2013

Announcements

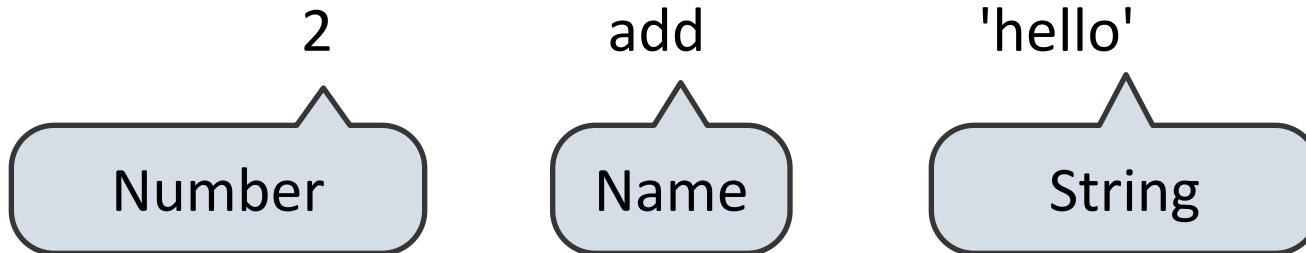


- Reminder: hw0 due tonight!
 - Read html file for instructions
 - Use our .py templates for homework and projects
- Find answers to your questions on Piazza
 - Use search functionality
 - Don't post private question unless it is not of general interest
- In-class quiz next Friday
 - Bring a writing implement

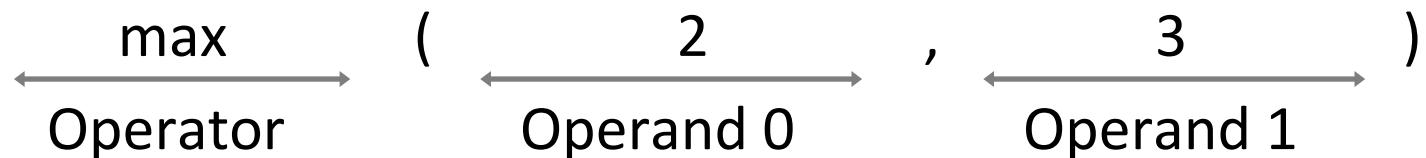
Review: Expressions



Primitive expressions:



Call expressions:



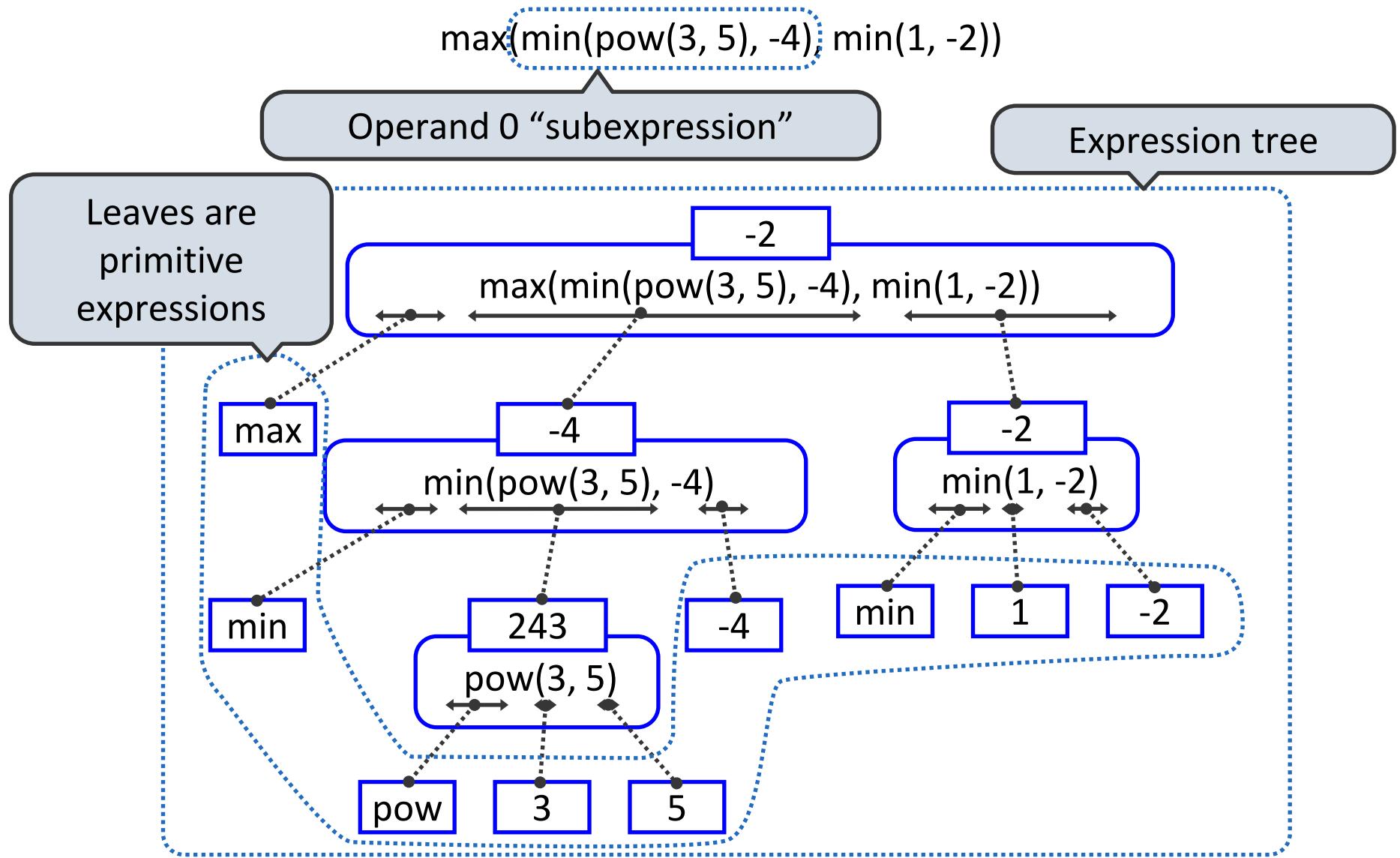
One big nested
call expression

`max(min(pow(3, 5), -4), min(1, -2))`

Infix operators represent implicit call expressions

$2 + 3 \rightarrow \text{add}(2, 3)$

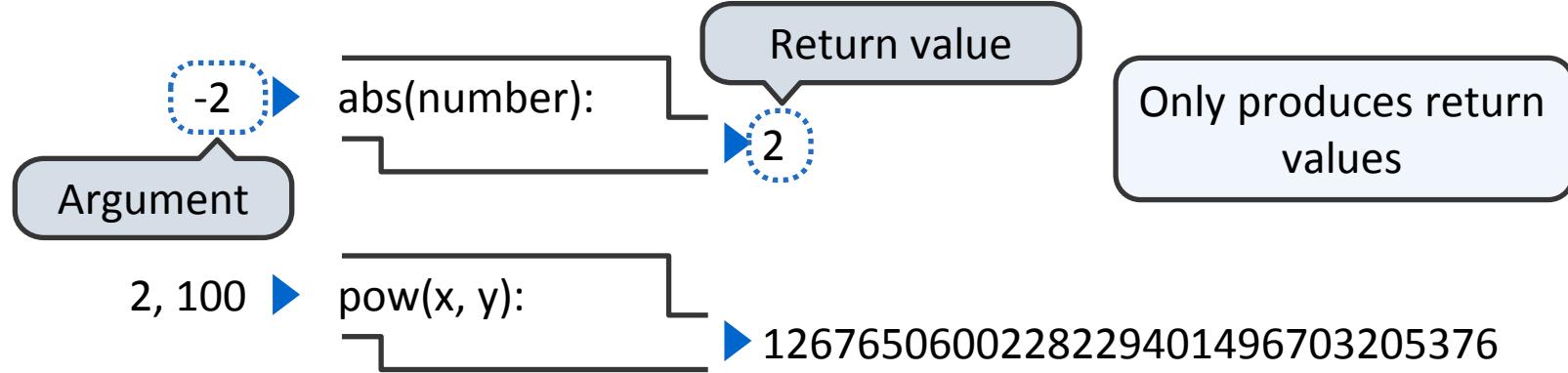
Review: Evaluation Procedure



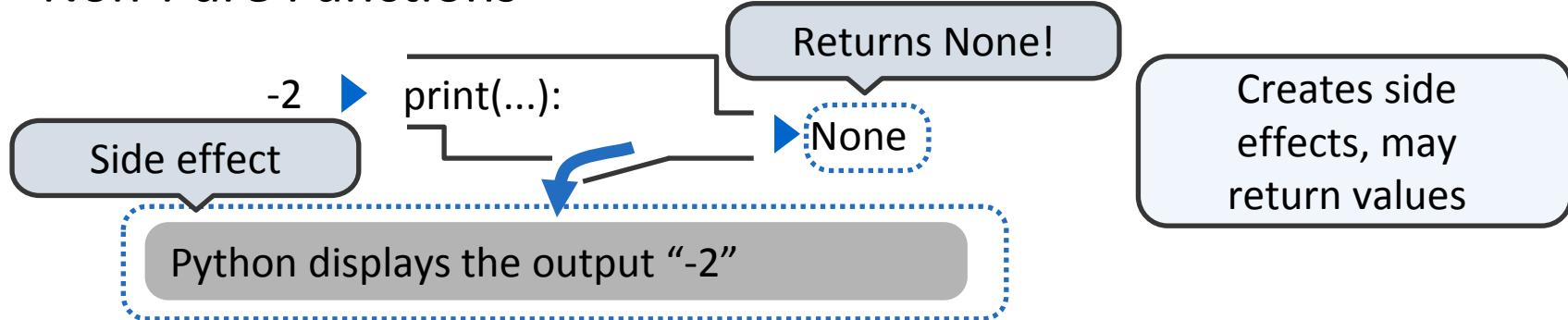
Types of Functions



Pure Functions



Non-Pure Functions

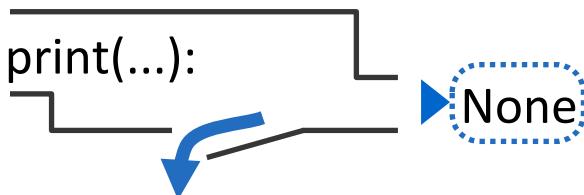


The interactive interpreter displays all return values except `None`.

Nested Print Expressions

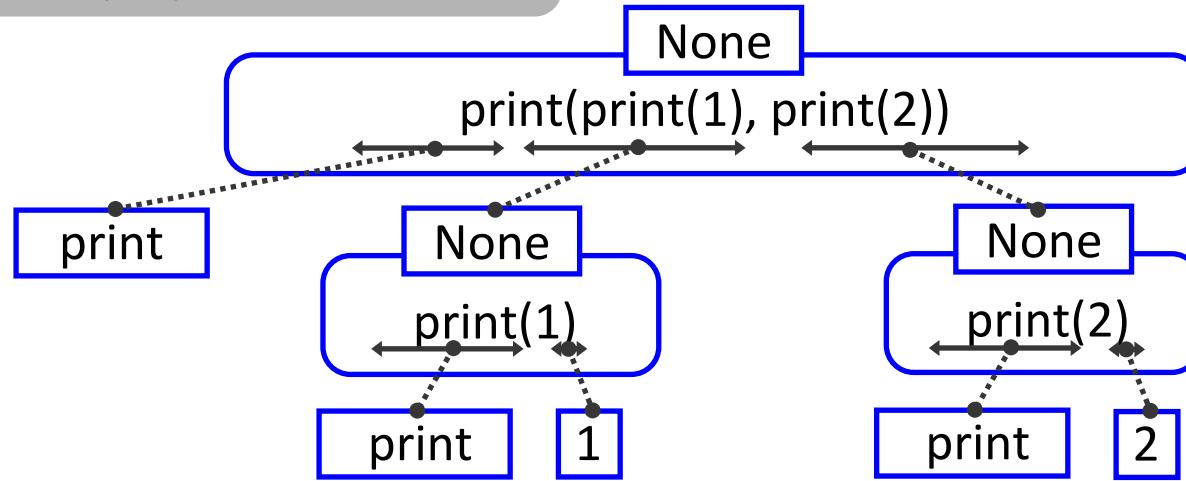


None, None ➤

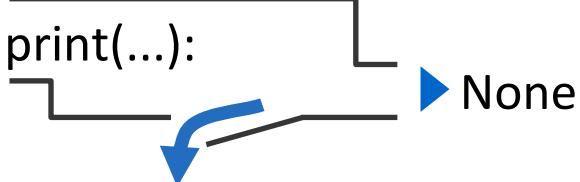


```
>>> print(print(1), print(2))  
1  
2  
None None
```

display "None None"



1 ➤



display "1"

2 ➤



display "2"

The Elements of Programming



- Primitive Expressions and Statements
 - The simplest building blocks of a language
- Means of Combination
 - Compound elements built from simpler ones
- Means of Abstraction
 - Elements can be named and manipulated as units