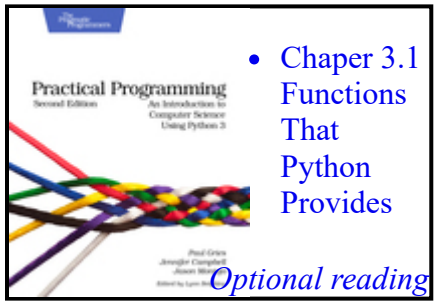
Function Reuse



- Chaper 3.1 Functions That Python Provides

Optional reading

Calling functions within other function definitions

The problem: Calculate the semi-perimeter of a triangle.

The approach: Function `semiperimeter` calls function `perimeter`.

```
def perimeter(side1, side2, side3):
    '''(number, number, number) -> number

    Return the perimeter of a triangle with sides of length
    side1, side2 and side3.

    >>> perimeter(3, 4, 5)
    12
    >>> perimeter(10.5, 6, 9.3)
    25.8
    '''
    return side1 + side2 + side3


def semiperimeter(side1, side2, side3):
    '''(number, number, number) -> float

    Return the perimeter of a triangle with sides of
    length side1, side2 and side3.

    >>> semiperimeter(3, 4, 5)
    6.0
    >>> semiperimeter(10.5, 6, 9.3)
    12.9
    '''
    return perimeter(side1, side2, side3) / 2
```

Calling functions within other function calls

The problem: One triangle has a base of length 3.8 and a height of length 7.0. A second triangle has a base of length 3.5 and a height of length 6.8. Calculate which of two triangles' areas is biggest.

The approach: Pass calls to function `area` as arguments to built-in function `max`.

```
max(area(3.8, 7.0), area(3.5, 6.8))
```

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