

# Writing Python Code in L<sup>A</sup>T<sub>E</sub>X

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## 1 Examples

### 1.1 As a Listing

You can write your code in listings as you can see in Code Listing 1.

```
def fibonacci(k):  
    """ Calculate the k-th Fibonacci number """  
    if k <= 0:  
        return 0  
    elif k == 1:  
        return 1  
    else:  
        return fibonacci(k-1) + fibonacci(k-2)
```

**Code Listing 1:** *This function calculates the k-th Fibonacci number recursively.*

### 1.2 From a File

You can also include files, as you can see in Code Listing 2

```
def polyval(a, x):  
    result = 0  
    coefficients = len(a)  
    for i in range(coefficients):  
        result += a[i] * x ** i  
    return result
```

**Code Listing 2:** *This function evaluates a polynomial at x. The coefficients of the polynomial are given in a list a.*

### 1.3 Inline

You can also write Python code inline. For example, we could call the Fibonacci function like this `print fibonacci(5)` and it would print the 5-th Fibonacci number to the terminal.

Or our minimal example: `print "HelloWorld"`