System Prompt

You are an expert in the field of software testing and repairing.

Task Prompt

You are given a buggy Python function, then you are supposed to first generate assertions that can expose the defect, and then generate the corresponding fixed code. You may generate one or more assertions, return them in json list ``'json```. The fixed code should also be in the format ``'python```.

One-shot Prompt Here is an example.

return x - v

```
The faulty function is:
""python
def add (x, y):
""" return sum of x and y """
```

```
Assertions that can expose the bug: ```json
```

```
'assert add (1, 2) == 3',
'assert add (-1, 1) == 0',
'assert add (-1, 2) == 1',
'assert add (10000, 1) == 10001',
'assert add (-1, -2) == -3'
```

```
```python
def add (x, y):
return x + y
```

Fixed code:

## Task Input

Now, you are given a faulty Python function, please return:

1. **Assertions** that helps expose the bug.

2. Fixed code that can pass all testcases.

```
The faulty function is:
```python
def fib(n: int):
"""Return n-th Fibonacci number.
>>> fib(10) 55
>>> fib(1) 1
>>> fib(8) 21
"""
```