

Using Python in Contests

It can be difficult to understand how a computer tests your program when you first start doing competitive programming. Let's look at an example.

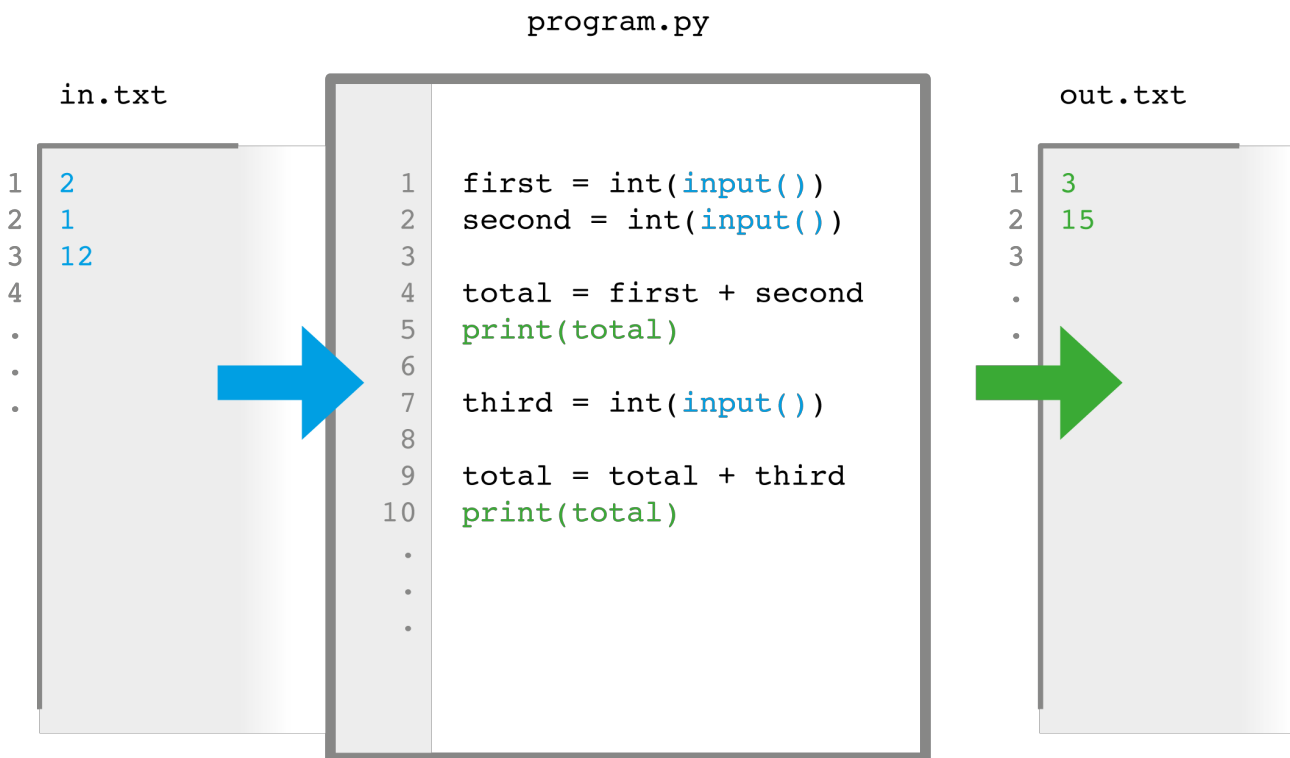
stdin and stdout

Most competitions will tell you: use the standard input (stdin) and standard output (stdout) streams. That basically means use the same functions as normal. In Python 3, use `input()` and `print()`. It is **not** necessary to use `sys.stdin`.

How a computer tests your code

There is one key difference between how you test your code and how the computer tests your code. That is, stdin and stdout connect to **text files** instead of a terminal or system console.

Consider the following example... Program lines 1 and 2 take input lines 1 and 2 from `in.txt`. The result is printed at line 5, adding it to the first line of `out.txt`.



Notice how it does not matter the order you read from `in.txt`. The input statement on line 7 occurs after a print. You may get input and send output at any time provided the output file contains the full answer in the end.

After your program has terminated, the output file is compared to the expected answer.

Note: Be careful using `input("prompt")`. This is equivalent to saying:

```
print("prompt")
input()
```

That means "prompt" will be output to the `out.txt` file and your answer will be wrong.