



# Using Python at the UCF High School Programming Tournament at the End of the Universe



## Contest Conventions:

Each problem in this contest will have a filename printed at the top of the problem's specification, under the title. This filename must be used to name the file containing your solution's source code. For example, if a problem's filename is `problem`, your Python solution must be in a file named `problem.py`. Note that your solution must work in Python 3 only. To keep things simpler, the competition does not support Python 2.

Your solution program must read the problem's input from the *standard input stream*. In Python, you can do this with `sys.stdin`, or more easily using the built-in function `input()`. Correspondingly, your program must write its output to the *standard output stream*, for which Python provides `print()`. A few brief samples are provided below. Any other input or output could result in your solution being judged incorrect, so stick to these guidelines. If you are a C, C++ or Java programmer, please see the corresponding version of this document.

## Example Use of the Standard Input Stream:

To read in using `input()`, you receive a line at a time as a string. You can convert to an integer as you read the line using the `int()` function. For example:

```
numTests = int(input())
```

It is common to use the `split()` and `map()` functions for multiple integers on a line:

```
a, b, c, d = map(int, input().split())
```

Or you can do the same process but store it into an array:

```
myArray = map(int, input().split())
```

If you need to read until end-of-stream, `input()` will throw an exception if the end-of-stream is reached. For example:

```
while True:
    try:
        line = input()
    except EOFError:
        break
```

## Example Use of the Standard Output Stream:

You should generate output using the `print()` function.

```
print('Hello World')
print(a, int(s))
```

You can use the `join()` function to output a list (array) as a string:

```
myArray = ['UCF', 'High', 'School', 'Programming', 'Tournament']
print(' '.join(myArray))
```

You can also use the `format()` function to customize output more easily:

```
print('Case #{}: {}'.format(i, answer))
print('Case #{}: {:.2f}'.format(i, answerToTwoDecimalPlaces))
```