

1 Decimal places in output

Python allows a lot of control over formatting of output. But here we will just look at controlling decimal places of output.

There are some different ways. Here is perhaps the most common (because it is most similar to other languages).

The number use is represented in the print function as `%x.yf` where `x` is the total number of spaces to use (if defined this will add padding to short numbers to align numbers on different lines, for example), and `y` is the number of decimal places. `f` informs python that we are formatting a float (a decimal number). The `%x.yf` is used as a placeholder in the output (multiple placeholders are possible) and the values are given at the end of the print statement as below:

```
import math
pi = math.pi
pi_square = pi**2

print('Pi is %.3f, and Pi squared is %.3f' %(pi,pi_square))
```

OUT:

```
Pi is 3.142, and Pi squared is 9.870
```

It is also possible to round numbers before printing (or sending to a file). If taking this approach be aware that this may limit the precision of further work using these numbers:

```
import math
pi = math.pi
pi = round(pi,3)
print (pi)
```

OUT:

```
3.142
```