Errata for *Doing Math with Python* (updated to 7th printing)

Page 8: In the final paragraph:

" . . . they take a string as input (`'1'`) and return a number (`2` or `2.0`)"

should now read:

" . . . they take a string as input (`'1'`) and return a number (`1` or `1.0`)"

Page 47: At the end of the first paragraph:

"The x-axis of the graph displays the force, and the y-axis displays the distance"

should now read:

"The x-axis of the graph displays the distance, and the y-axis displays the force"

Page 48: In the caption for Figure 2-12:

"Visualization of the relationship between the gravitational force and the squared distance"

should now read:

"Visualization of the relationship between the gravitational force and the distance"

Page 52: In the first paragraph:

"At (2), we calculate the time of flight and then call the `frange()` function with the values for `start`, `final`, and `increment` set to 0, `t_flight`, and 0.001, respectively."

should now read:

"At (2), we calculate the time of flight and then call the `frange()` function with the values for `start`, `final`, and `interval` set to 0, `t_flight`, and 0.001, respectively."

Page 55: In Challenge #2, second paragraph:

" . . . and uses the label y to refer to the list of results"

should now read:

" . . . and uses the label y to refer to the result"

Page 76: In the text box:

" . . . and crime are correlated because they both go up"

should now read:

" . . . and crime rate are correlated because they both go up"

Page 77: In the final block of code, the line `for yi in y` should be left-aligned with the line `y_square=[]` above.

Page 87: Between the fourth and fifth paragraphs, we added the sentence: "If you are unable to access the service, download a copy of the file from *https://github.com/doingmathwithpython/code/blob/master/chapter3/solutions/correlate-summer.csv*."

Page 97: In the section "Factorizing and Expanding Expressions," the `expand()` function must be imported before it can be used: `from sympy import expand`

Page 99: In the code snippet, line (2) should be left-aligned under line (1)

Page 112: In the second code listing:
```
from sympy import Symbol, sympify, solve
```
should now read:
```
from sympy import Symbol, sympify, solve, SympifyError
```

Page 115: In the first paragraph:
"(using the first letter of the color in each case)"
should now read:
"(using the first letter of the color in each case, except black for which you use `'k'`)"

Page 132: We added the following line at the top of the second listing: `from sympy import FiniteSet`

And we removed one level of indentation from the entire second code block (except for the first line, `from sympy import FiniteSet`)

And in the section "Probability," the code line above the one marked with a (3), which reads:

```
for num in s:
```

should now read:

```
for num in space:
```

Page 135: In the third code block, we deleted the line: `import matplotlib.pyplot as plt`

Page 139: In the "Simulate a fictional ATM" program listing, the statement that reads:

```
probability = [1/6, 1/6, 1/3, 2/3]
```

should now read:

```
probability = [1/6, 1/6, 1/3, 1/3]
```

Pages 164-165: We updated the equations as follows:

Transformation 1

$x1 = 0.85x + 0.04y$

$y1 = -0.04x + 0.85y + 1.6$

Transformation 2

$x1 = 0.2x - 0.26y$

$y1 = 0.23x + 0.22y + 1.6$

Transformation 3

$x1 = -0.15x + 0.28y$

$y1 = 0.26x + 0.24y + 0.44$

Transformation 4

$x1 = 0$

$y1 = 0.16y$

Page 194: At the bottom of the second paragraph, the formula:

```
abs(x_old - x_new) > epsilon
```

should now read:

```
abs(x_old - x_new) <= epsilon
```

Page 195: In the code listing:

```
from sympy import Derivative, Symbol, sympify
```

should now read:

```
from sympy import Derivative, Symbol, sympify, SympifyError
```


Page 213: The link in Appendix A to download Anaconda is no longer active. The correct link is

https://www.anaconda.com/distribution/