MTH 337: Week 3

Day 6. Monday 14 September, 2015

Let's get going. First: the quiz.

Quiz 1

- The median score was 10/14.
- Grading questions: see me after class or in office hours.
- Quiz cards: see me after class.
- Let's talk about question 6.

```
1 6 != 5 or 5 > 4 and 4 == 3
```

Returns True! Just to check, we can also do:

```
1 True or True and False
```

Returns True again. On the quiz about 85% of students answered False, and, to tell you the truth, that would have been my answer too!

This story does have a happy ending, by the way, which we'll come to.

So what's going on? When we talked about logical operators, I stated that and, or, not were all of equal precedence. Working through from left to right, we would have got "False".

This is how it's stated in one of the references I've been using, "Scientific Computation", by Bruce Shapiro.

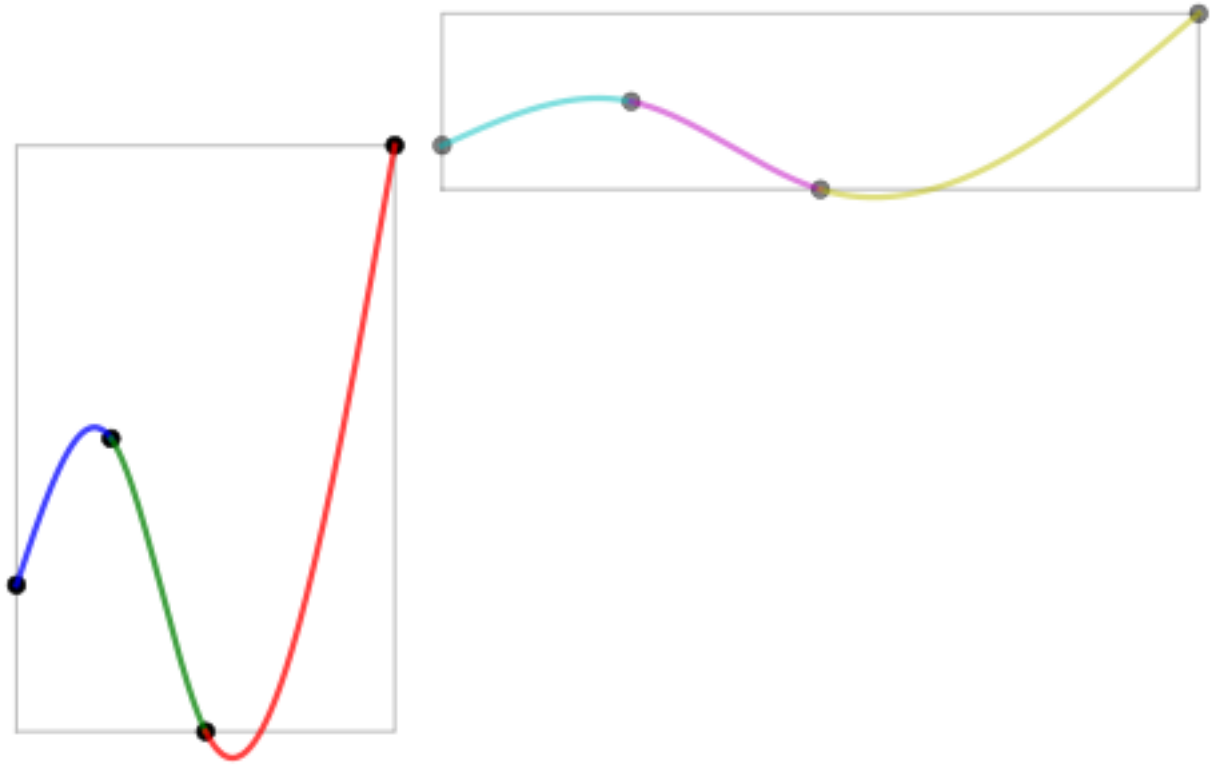
SHOW SHAPIRO TABLE 6.2.

It's also how logical operator precedence is described on several Python websites.

Unfortunately, however, this is wrong. The actual precedence, as given in the official Python documentation, is:

1. not
2. and
3. or

So, the "and" is evaluated first, then the "or". If we go back to this question, this gives us "True", which is what Python said.



Given what was said in class, the only reasonable thing is to give everyone a point for this question, which is what has been done.

Like all good stories, this one has a moral:

- Break complex logical/mathematical expressions down into simpler ones (or use parentheses)
- Don't believe everything you read!

We'll start with a few loose ends to tie up from the first report.

Activity:
Continue with second homework assignment.

See me at the end of class if you need more help.