On Thursday, February 16th at 6:00AM EST, UTC-5, we will be conducting a brief database maintenance. The event should last about 5 minutes.

Exercise 3

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Exercise 3

1 point possible (graded)

ESTIMATED TIME TO COMPLETE: 3 minutes

Consider the following function definition:

```
def maxOfThree(a,b,c) :
    """
    a, b, and c are numbers

    returns: the maximum of a, b, and c
    """
    if a > b:
        bigger = a

    else:
        bigger = b

    if c > bigger:
        bigger = c

    return bigger
```

Assume that `maxOfThree` is called with numbers as arguments.

Which of the following test suites would make a path-complete glass box test suite for `maxOfThree`?

Review: Glass Box Test Suites

Recall from the lecture that a path-complete glass box test suite would find test cases that go through every possible path in the code. This is different from black-box testing, because in black-box testing you only have the function specification. For glass-box testing, you actually

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know how the function you are testing is defined. Thus you can use this definition to figure out how many different paths through the code exist, and then pick a test suite based on that knowledge.

Undoubtably many - if not all - of the listed tests look like they would be pretty good for testing the function `maxOfThree`. However, we want you to think critically about the way `maxOfThree` is defined - including possible boundary cases - and pick a set of tests that adequetly and fully tests all paths and boundary conditions. A good first step will be to look at the function definition and figure out what paths through the code exist. Then, look through the suggested test suites one test at a time and see if the suite tests every single path.

- Test Suite A: `maxOfThree(2, -10, 100)`, `maxOfThree(7, 9, 10)`, `maxOfThree(6, 1, 5)`, `maxOfThree(0, 40, 20)`
- Test Suite B: `maxOfThree(10, 100, -20)`, `maxOfThree(99, 0, 20)`, `maxOfThree(1, 60, 300)`
- Test Suite C: `maxOfThree(0, 0, 0)`, `maxOfThree(-3, -10, -1)`, `maxOfThree(10, 30, 100)`, `maxOfThree(0, -9, 11)`, `maxOfThree(-10, 0, 30)`

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Exercise 3

Topic: Lecture 7 / Exercise 3

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