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CSE 337
Assignment 1

QUESTION 3

i. c will output [[1,2],3]

ii. Yes the outcome matched my prediction. When we created c, we copied
the values of list b. Then we changed a[0]=7, this will be passed onto c
because in c there is a which is a direct refernce to a. but when we
change b[1]=8, it will not change because we are only copying the values
of b and not using its refernce. c[1] however has a reference of a
directly when the value of b is copied to it.

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For Part iii and iv: source codes are available. This is just a short
description.
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iii. to use copy, we need to import copy. then let's say we want to copy
c to d, then we can use d = copy.deepcopy(c)

iv.
    Since part iv asks for outcome. It is also shown in the program.
    d = [[7,[4,6]],3] is the outcome which is copied from c which is a
3-level list.

QUESTION 4

i.
a. if n=2 and r=1
    since n>r, the loop will break
    it will also look for the if n<2 but it doesn't fulfil so it's the
end of the program

b. if n=1 and r=1
    n==r, so the iteration will continue to the next one. n=2, from the
question i assume r=1. Since n>r, the loop will break and same as part a.

c. if n=2 and r=2
    n==r, it will continue but the iteration is only for range(3), then
the else statement will be executed and "Wow, you are lucky" will be
printed.

d. if n=0 and r=2
    it does not satisfy line 8 and 9, so x will be printed. it goes
back to the iteration, n=1 and r=2, will print x again since doesn't
satisfy line 8 and 9. n=2 and r=2. then the same outcome as c after this.

ii. when n = 2 and r = 2, since n is only in range(3) which is (0,1,2);
the iteration ends since the condition is not satisfied and the else
statement is printed. "Wow, you are lucky" will be printed. So, when n is
out of range, "Wow, you are lucky" will be printed.