NAND Gate

2 min

Our first gate is the *NAND gate*. This gate receives two inputs and returns current as long as at least one of the inputs is off.

Here's the truth table:

a	***b***	**output**
0	0	1
0	1	1
1	0	1
1	1	0

Instructions

1. Checkpoint 1 Passed

1.

We've written most of a NAND gate in the **script.py** file. Finish the remaining case so all our test cases pass!

Run the file to run the test cases!

Hint

Refer to the truth table if you're stuck!

NAND_gate() will return 0 if both of the inputs a and b are 1.

script.py

```
def NAND_gate(a, b):
  if a:
    if b:
      return 0
  return 1


# TEST CASES


print("A: 0, B: 0 | Output: {0}".format(NAND_gate(0, 0)))
print("A: 0, B: 1 | Output: {0}".format(NAND_gate(0, 1)))
print("A: 1, B: 0 | Output: {0}".format(NAND_gate(1, 0)))
print("A: 1, B: 1 | Output: {0}".format(NAND_gate(1, 1)))
```