

CS151 Conditionals Worksheet | Spring 2021 | Week 3

Name: _____

Question 1: Conditional statements

In this question, assume that the following variables are defined:

```
numCircles = 5
numRects = 6
numShapes = numCircles + numRects ] 11
```

1a

```
    5      11
   ──── ────
if numCircles < numShapes: ✓
    print('a')
if numRects < numShapes: ✓
    print('b')
```

6 → a
b

1b

```
    5      6
   ──── ────
if numCircles < numRects: ✓
    print('a')
else:
    print('b')
    print('c')
```

a
c

1c

```
    5      6
   ──── ────
if numCircles >= numRects: X
    print('a1')
    print('a2')
elif (numCircles + numRects) < numShapes: X
    print('b1')
    print('b2')
else:
    print('c')
    print('d')
```

5 + 6 = 11 ⇒ 11 < 11

c
d

1d

```
if numCircles == 5:
    if numRects != 6:
        print('a1')
    else:
        print('a2')
if numRects != 5:
    print('b')
else:
    print('c')
if numShapes >= 11:
    print('d')
print('e')
```

✓ $6 \neq 6 ?$

✓ $6 \neq 5 ? \text{ True}$

" $11 \geq 11 ?$

a2
b
d
e