socrative

Name _____
Date _____

CS150 L07.2: Relational operators - solution

Score _____

1. What is the output of the following code?

```
a = 3
b = (a != 3)
print(b)
```

(A) True
(B) False
(C) 3
(D) Syntax error

Answer: B
Variable b is assigned the result of a relational operator, so it must be a boolean. Here, a == 3 and the relational operator tests whether a != 3, so b is assigned False.

2. What is the output of the following code? a = 3 b = (a == 3) print(b)

(A) True
(B) False
(C) 3
(D) Syntax error

Answer: A
Variable b is assigned the result of a relational operator, so it must be a boolean. Here, a == 3 and the relational operator tests whether a == 3, so b is assigned True.

3. I would like an expression that evaluates to True when at least one of the following two conditions is true:
(1) a and b are equal,
(2) when a has value 5.

Which of these expressions does that?

(A) a == b == 5
(B) (a == b) or (a == 5)
(C) (a == b) and (a == 5)
(D) a == (b == 5)

Answer: B
Based on “at least one of” we will need an OR operator, that is, (a == b) or (a == 5).
Option A chains together two tests for equality with AND, so Option A is equivalent to (a == b) and (b == 5).