**Problem 1‐6. Who is the True Thief?**

Four potential criminals were suspected to be the thief, and detained by polices. Their IDs are 1, 2, 3, and 4. It is sure that one of them is the true criminal. During the questioning and interrogation, each of them provides one sentence, as listed below.

1 said he is not the thief.

2 said 3 is the thief.

3 said 4 is the thief.

4 said 3 is a liar.

Evidences tell the police that three of these four sentences are true, and one is false. Please complete the following code in order to judge who is the true thief. Your task is to use Boolean operators (and, or, not) and relational operators (==, !=) with some expressions to find the true thief.

Sample Input/Output:

The true thief is 3.