Math 101 Section C Quiz #6

1. Which of the following statements is the negation of “All students who pass Math 101 study.”?

a) Some students (or student) who pass Math 101 study.
b) No students who pass Math 101 study.
c) Some students (or student) who pass Math 101 don’t study.
d) All students who pass Math 101 don’t study.

The negation of a “for all [blah blah blah]” statement is a “there exists *not* [blah blah blah blah]” statement. Here the “for all” is talking about students who pass Math 101. So the negation is the statement that there exists a student or students who pass Math 101 but don’t study (the negation of study). Answer c) is the correct choice.

2. Assume that the statement “All students who pass Math 101 study.” is true and that Lois failed Math 101. Can you conclude that Lois didn’t study?

As remarked above, the “for all” statement here deals with students who pass Math 101. Lois apparently isn’t one of those students, so the statement says nothing about her. We can’t conclude that Lois didn’t study.