Math 116: Written Homework Set 10

This assignment is due on Thursday, February 28th in class. Show all work where possible! Answers magically appearing will receive no credit.

1. Symbolize the following arguments and use a truth table to determine its validity.

    a. If Jane is short, then she eats bacon with a spoon.
       Jane eats bacon with a spoon.

       Therefore, Jane is short.

    b. Mary is either sweet or clever.
       Mary is not clever.

       Therefore, Mary is sweet.

    c. If I don't get up, I'll never get going.
       I get up.

       Therefore, I get going.

2. Negate the following sentences.
    a. All fish live in trees.
    b. Some fish do not live in trees.
    c. No trees grow under water.
    d. Some presidents are well-liked.

Selected Answers

1a. $s \rightarrow b$
b
\-\-\-\-\-\-\-\-\-   Truth table will show this argument is not valid.
s

2. a. Some fish do not live in trees.
    d. No presidents are well-liked.