

Worksheet 1

1. Find the atomic statements in each of the following compound statements. Decide whether the statements are true or false. If they are false, give a counter example. If they are true, try to decide why.
 - (a) The derivative of the product is the product of the derivatives.

 - (b) Every number is either zero or positive.

 - (c) If we are in Atlanta, then we are in Georgia.

 - (d) If we are in Miami, then we are in Atlanta.

 - (e) The product of an even number with any other number is even, but the sum of an even number with any other number is odd.

2. Find the negation of the statements from Problem #1.

3. Write some atomic statements, then form statements of the form $p \wedge q$, $p \vee q$, and $p \rightarrow q$. Then find the negation of these statements.