DeMorgan's Law and Operator Precedence --- AP Computer Science --- Haas

1) Complete the truth table for the following Logical operators.

A	B	A && B	A || B	!A	!B	!(A && B)	!(A || B)	!A && !B	!A || !B
false	false								
false	true								
true	false								
true	true								

DeMorgan's Law

!(A && B) has the same truth value as _____

!(A || B) has the same truth value as _____

2) The Boolean expression !(!A || B) is equivalent to:

(1) A && !B (2) !A && B (3) A || !B (4) !A || B

3) The Boolean expression !(!A && !B) is equivalent to:

(1) A && B (2) !A && !B (3) A || B (4) !A || !B

4) If a, b, and c are integers, which of the following is sufficient to guarantee the following expression evaluates to true?

!(a > b) && (a > c) || !(b > c)

(1) a < b (2) b < c (3) a > c (4) b > c

Operator Precedence

Highest: !, ++, --
*, /, %
+, -
<, >, <=, >=
==, !=
&&
||
Lowest: =, +=, -=, *=, /=, %=