1. Boolean Algebra

Evaluate the following expression as either TRUE or FALSE:

NOT (3 + 5 < 7) OR (4 / 2 ≥ 2 AND 7 * 3 > 25)

2. Boolean Algebra

How many ordered pairs make the following statement FALSE?

NOT (A OR B) AND B AND NOT A

3. Boolean Algebra

Determine which ordered pairs make the following statement TRUE:

~A * ~B + A * B

4. Boolean Algebra

Simplify the following Boolean expression using the fewest operations:

~ (A + B) + ~(A + ~B)

5. Boolean Algebra

Simplify the following Boolean expression so that no AND operations appear in the solution:

~A + B * ~A + ~B * A + ~B