

Lab 3

1. Generate truth tables for following compound propositions.

a. $(p \wedge \neg q \vee r) \rightarrow (\neg p \vee r)$

b. $(p \wedge \neg q \vee r) \leftrightarrow (\neg p \vee r)$

2. Use a truth table to test the validity of the following argument using truth table.

If you are a hound dog, then you howl at the moon.

You don't howl at the moon.

Therefore, you aren't a hound dog.

3. Test the validity of the following argument using truth table.

I will buy a new goat or a used Yugo.

If I buy both a new goat and a used Yugo, I will need a loan.

I bought a used Yugo and I don't need a loan.

Therefore, I didn't buy a new goat.

4. Test the validity of the following argument using truth table.

Premise: If I go to the mall, I will buy new jeans

Premise: If I buy new jeans, I will buy a shirt to go with it.

Conclusion: If I go to the mall, I will buy a shirt.