Problem 1 (8 pts). Show that the following logical equivalence holds:

\[ p \implies (q \implies r) \equiv (p \land q) \implies r \]

Problem 2 (4 pts each). Provide enough explanation in your solutions for the following problems!

a. Show that if \( r > 1 \), then \( r^2 > r \).

b. State the converse and the contrapositive of the statement above.

c. Prove or disprove the converse statement.