

MATH 210 Discrete Mathematics – Session 5

Complete the truth table below.

					converse	inverse	contrapositive
p	q	$\sim p$	$\sim q$	$p \rightarrow q$	$q \rightarrow p$	$\sim p \rightarrow \sim q$	$\sim q \rightarrow \sim p$

If p then q.

p implies q.

If p, q.

p is sufficient for q.

p is a sufficient condition for q.

Not p unless q.

p only if q.

Whenever p, q.

q if p.

q is necessary for p.

q is a necessary condition for p.

q follows from p.

q whenever p.

Construct a truth table for $[(p \rightarrow q) \wedge \sim q] \rightarrow \sim p$.