

Notes_7

$$(porq) \text{ xor } (pandr) \Rightarrow (pxor) \text{ xor } (pxorr)$$

| *What are the truth values of p, q, r that make LHS T?*

$$porq \mid T$$

$$pandr \mid F$$

p	q	r	RHS
T	T	F	$F \text{ xor } T = T$
T	F	F	$T \text{ xor } F = T$
F	T	T	$T \text{ xor } F = T$
F	T	F	$T \text{ xor } T = T$

This logical implication is invoked by

1. $p \mid F$

2. $q \mid T$

3. $r \mid F$

$$(pxorq) \text{ xor } (qxorr) \Rightarrow (porq) \text{ xor } (pandr)$$

| *What makes LHS T?*

$$(pxorq) \text{ xor } (qxorr) \mid T$$

1. $pxorq \mid T$ $qxorr \mid F$

2. $pxorq \mid F$ $qxorr \mid T$