

Math 4021 - Prof. Pennance - Logical Connectives

Logical Connectives

$p$	$q$
1	1
1	0
0	1
0	0

15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	Decimal
$T$	$p \vee q$	$p \leftarrow q$	$p$	$p \rightarrow q$	$q$	$d \leftrightarrow q$	$p \wedge q$	$p \uparrow q$	$b \vee d$	$\neg q$	$p \wedge \neg q$	$\neg p$	$q \wedge \neg p$	$p \downarrow q$	$\perp$	0
1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
1	1	1	1	0	0	0	0	1	1	1	1	0	0	0	0	0
1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	0
1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	0
$E$	$P \cup Q$	$P \cup Q'$	$P$	$P' \cup Q$	$Q$	$(P \Delta Q)'$	$P \cap Q$	$P' \cup Q'$	$P \Delta Q$	$Q'$	$P \setminus Q$	$P'$	$Q \setminus P$	$P' \cap Q'$	$\emptyset$	Set
																Gate
Tautology	Disjunction	IF	$P$	Implication	IF - THEN				Exclusive OR	Negation	Difference	Negation	Difference	NOR	Contradiction	Name