Aula 08 - Equivalência Lógica (gabarito)

① Defina "$\rightarrow$" e "$\uparrow$" usando "$\vee$" e "$\sim$".

$p \rightarrow q \equiv \sim p \vee q$

p	q	$p \rightarrow q$	$\sim p$	$\sim p \vee q$
0	0	1	1	1
0	1	1	1	1
1	0	0	0	0
1	1	1	0	1

$p \wedge q \equiv \sim(\sim p \vee \sim q)$

p	q	$p \wedge q$	$\sim p$	$\sim q$	$\sim p \vee \sim q$	$\sim(\sim p \vee \sim q)$
0	0	0	1	1	1	0
0	1	0	1	0	1	0
1	0	0	0	1	1	0
1	1	1	0	0	0	1

②

A	B	$A \uparrow B$
0	0	1
0	1	1
1	0	1
1	1	0

$\sim(p \wedge q) \equiv p \uparrow q$

p	q	$p \wedge q$	$\sim(p \wedge q)$	$p \uparrow q$
0	0	0	1	1
0	1	0	1	1
1	0	0	1	1
1	1	1	0	0