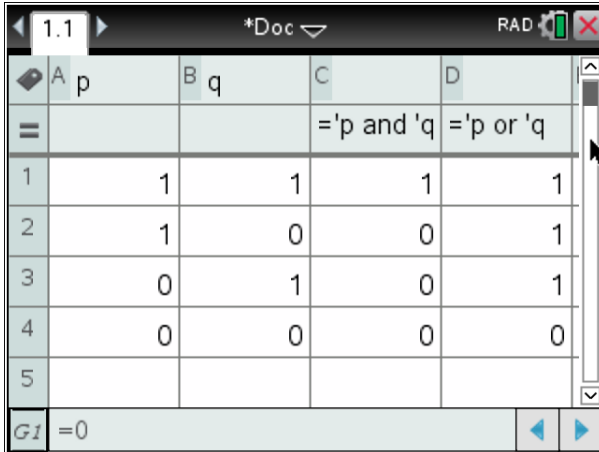


TRUTH TABLES ON TI NSPIRE CX

We use 1 for T and 0 for F

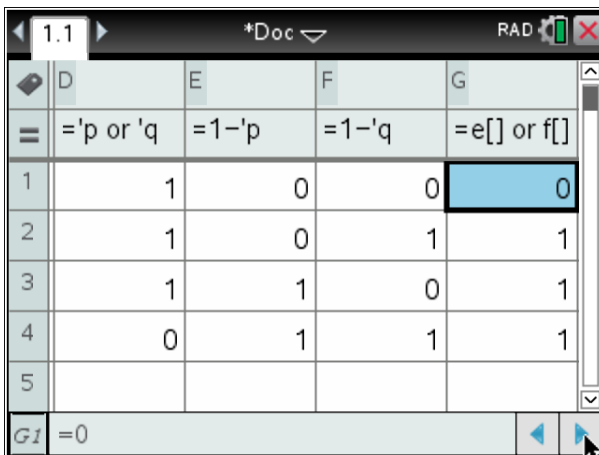
Use **and** for **conjunction** and **or** for inclusive **disjunction**



The screenshot shows a TI-NSPIRE CX interface with a truth table. The table has columns labeled A p, B q, C, and D. The formulas for C and D are '=p and 'q' and '=p or 'q' respectively. The rows show the results for combinations of 1 and 0. The status bar at the bottom shows 'G1 = 0'.

	A p	B q	C	D
=			= 'p and 'q	= 'p or 'q
1	1	1	1	1
2	1	0	0	1
3	0	1	0	1
4	0	0	0	0
5				
G1	= 0			

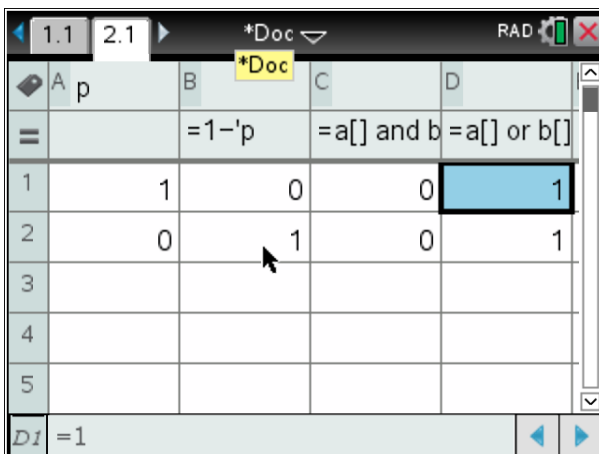
For negation we use 1-p and 1-q



The screenshot shows a TI-NSPIRE CX interface with a truth table. The table has columns labeled D, E, F, and G. The formulas for D, E, F, and G are '=p or 'q', '=1-'p', '=1-'q', and '=e[] or f[]' respectively. The rows show the results for combinations of 1 and 0. The status bar at the bottom shows 'G1 = 0'.

	D	E	F	G
=	= 'p or 'q	= 1-'p	= 1-'q	= e[] or f[]
1	1	0	0	0
2	1	0	1	1
3	1	1	0	1
4	0	1	1	1
5				
G1	= 0			

Notice the difference between variable reference and column reference:



The screenshot shows a TI-NSPIRE CX interface with a truth table. The table has columns labeled A p, B, C, and D. The formulas for B, C, and D are '=1-'p', '=a[] and b', and '=a[] or b[]' respectively. The rows show the results for combinations of 1 and 0. The status bar at the bottom shows 'D1 = 1'.

	A p	B	C	D
=		= 1-'p	= a[] and b	= a[] or b[]
1	1	0	0	1
2	0	1	0	1
3				
4				
5				
D1	= 1			

To create the truth table $\neg(p \wedge q)$:

p	q	$p \wedge q$	$\neg(p \wedge q)$
T	T	T	F
T	F	F	T
F	T	F	T
F	F	F	T

To create the truth table $\neg p \vee \neg q$:

p	q	$\neg p$	$\neg q$	$\neg p \vee \neg q$
T	T	F	F	
T	F	F	T	
F	T	T	F	
F	F	T	T	