De Morgan's Laws

Use Truth Tables to prove De Morgan's Laws (see page 40).

$$\neg(p \lor q) = \neg p \land \neg q$$

p	q	$p \lor q$ (1)	$p \land q$ (2)	$\neg(p \lor q)$ (3)	$\neg(p \land q)$ (4)
0	0	0	0	1	1
0	1	1	0	0	1
1	0	1	0	0	1
1	1	1	1	0	0

p	q	¬p (5)	¬q (6)	$\neg p \wedge \neg q$ (7)	$\neg p \vee \neg q$ (8)
0	0	1	1	1	1
0	1	1	0	0	1
1	0	0	1	0	1
1	1	0	0	0	0