Logic : Truth Tables

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Logic : Truth Tables

p	q	¬p (“Not”)	¬q (“Not”)	p∧q (“AND”)	p∨ q (“OR”)
0	0				
0	1				
1	0				
1	1				

Logic : Truth Tables

p	q	¬p ("Not")	¬q ("Not")	p∧q ("AND")	p∨ q ("OR")
0	0	1	1	0	0
0	1	1	0	0	1
1	0	0	1	0	1
1	1	0	0	1	1

Logic : Truth Tables

Use truth tables to prove that:

$$(p \wedge q) \vee (\neg p \wedge \neg q) \equiv p \leftrightarrow q$$

Logic : Truth Tables

p	q	p∧q	¬p	¬q	(¬p ∧ ¬q)	(p∧q) ∨ (¬p ∧ ¬q)	p ↔ q
0	0		1	1			1
0	1		1	0			0
1	0		0	1			0
1	1		0	0			1

Logic : Truth Tables

p	q	p∧q	¬p	¬q	(¬p ∧ ¬q)	(p∧q) ∨ (¬p ∧ ¬q)	p ↔ q
0	0	0	1	1	1	1	1
0	1	0	1	0	0	0	0
1	0	0	0	1	0	0	0
1	1	1	0	0	0	1	1

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0	1		1	0			0
1	0		0	1			0
1	1		0	0			1