

## Negations

Earlier, we defined  $p$  as “It is snowing.” How do you think we will interpret  $\sim p$ ? That’s right, “It is not snowing.”

Let’s look at a truth table that contains negations and see how that plays out.

$p$	$q$	$\sim p$	$\sim q$	$\sim p \vee \sim q$
T	T	F	F	F
T	F	F	T	T
F	T	T	F	T
F	F	T	T	T

Let's look at a truth table that contains negations and see how that plays out. Use the **DEFINITIONS**

Let's combine all these truth tables and see what we have.

$p$	$q$	$\sim p$	$\sim q$	$p \wedge q$	$p \vee q$	$\sim p \vee \sim q$	$\sim(p \vee q)$
T	T	F	F	T	T	F	F
T	F	F	T	F	T	T	F
F	T	T	F	F	T	T	F
F	F	T	T	F	F	T	T