

$$(\neg p \vee q) \vdash (p \rightarrow q)$$

1.  $(\neg p \vee q)$

Premise

2.  $p$

Assumption

3.  $p \wedge (\neg p \vee q)$  2,1  $\wedge$ -Intro

4.  $(p \wedge \neg p) \vee (p \wedge q)$  3, Distrib.

5.  $\perp \vee (p \wedge q)$  4, Contradiction

6.  $(p \wedge q)$  5 Commutativity  
Identity

7.  $q$

6 Commutativity  
 $\wedge$ -Elim

8.  $(p \rightarrow q)$

2-7  $\rightarrow$ -Introduction