Two general *strategies* to keep in mind:

Note: these are just general strategies ***not*** rules.

l	$\phi \vee \psi$
m	$\neg\phi$
	$\vdots$
n	ψ

l	$\phi \rightarrow \psi$
m	$\neg\psi$
	$\vdots$
n	$\neg\phi$

Exercises

1. If I am asked to prove an argument of the following form ' ... $\vdash \phi$', should I start my proof by assuming ϕ? Why?
2. Offer a proof of the following argument:
   (a) $(p \rightarrow q) \wedge r, \neg((p \wedge q) \wedge (r \wedge s)), p \vdash \neg s$

Practice Quiz

Offer a proof of the following arguments in 20 minutes:

1. $(p \wedge r) \vee (r \wedge s) \vdash r$
2. $\neg((s \vee p) \vee q) \vdash \neg s \wedge \neg q$
3. $p \rightarrow s, \neg(r \wedge q) \rightarrow \neg s \vdash p \rightarrow (r \wedge q)$
4. $s \rightarrow (p \rightarrow r), p \wedge \neg r \vdash \neg s$
5. $(p \vee q) \rightarrow r, \neg r \vdash \neg q \vee r$