

7.5 Introduction to Proofs

Logical order

valid arguments

Direct
$$\frac{P \rightarrow Q \quad P}{\therefore Q}$$

Chain
$$\frac{P \rightarrow Q \quad Q \rightarrow R}{\therefore P \rightarrow R}$$

Following order
Travel Itineraries
flight plans

You are in Minneapolis

Your starting point is the "given" Statements

Flight plan

NW238	MSP → OHC	1. You are in Minneapolis
NW31	OHC → DET	2. Travel from MSP → OHC
CD3	DET → FWI	3. Travel from OHC → DET
		4. Travel from DET → FWI

Two Column Proof

Steps (Action)	Reason (How)
1. You are in Boston	1. Given
2. You fly from Boston to KC	2. Delta 1417000 from Bos → KC
3. You fly from KC to SLC	3. Delta 1080000 from KC → SLC
4. You Drive from SLC to LV	4. Budget Rent car from SLC → LV
5. You Fly from LV to SF	5. American 1 from LV → SF

