

LESSON #14: PRACTICE WITH PROOFS

This lesson provides seven different proof problems for practice using the proof rules we've learned so far. We probably won't have time to cover them all in class, so be sure to think through on your own the ones we don't get to, using the solutions below as your guide.

POWERPOINT SLIDES #1-5 Problem requires **both conjunction rules** and **v Intro**:

(The powerpoint slides provide commentary walking you through each step of the proof.)

1	Tet(a) \wedge Large(a)	
2	Med(b) \wedge Dodec(b)	
3	Large(a)	\wedge Elim: 1
4	Dodec(b)	\wedge Elim: 2
5	Large(a) \wedge Dodec(b)	\wedge Intro: 3,4
6	(Large(a) \wedge Dodec(b)) \vee Cube(c)	\vee Intro: 5

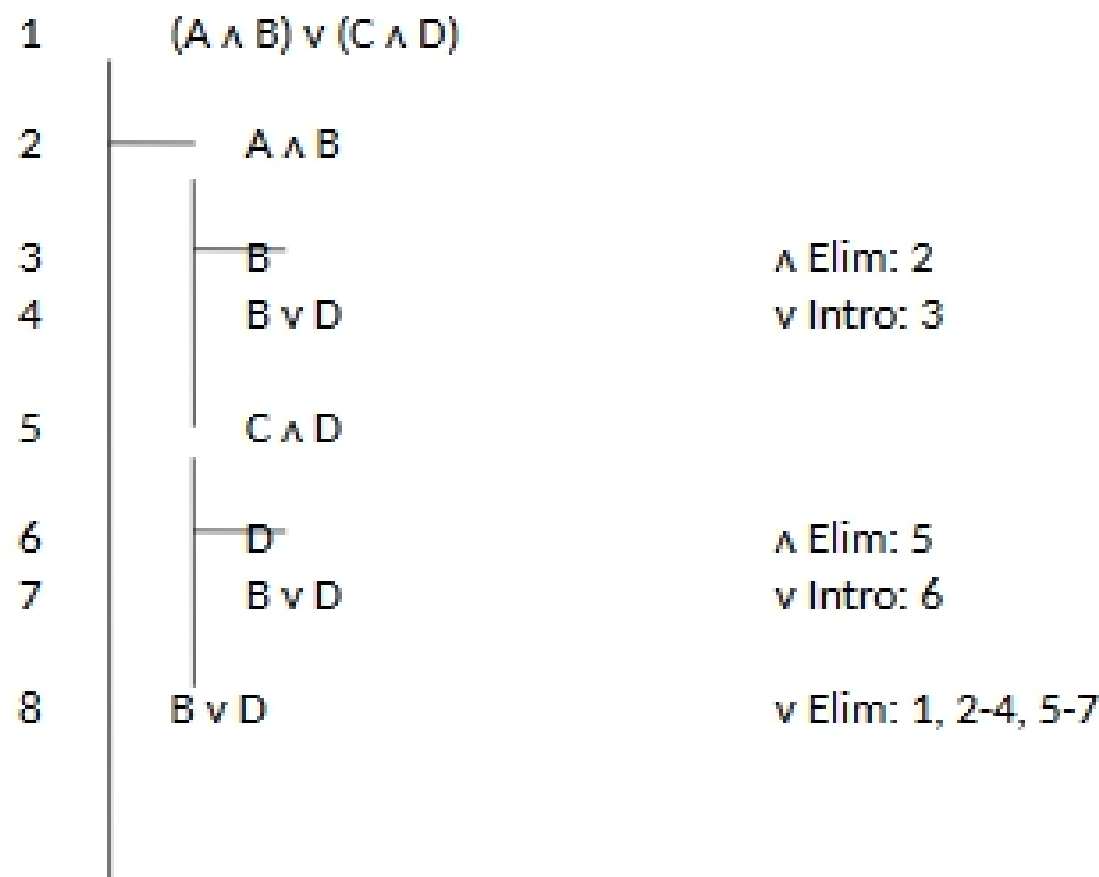
Fitch problem 6.3

Problem requires **both conjunction rules** and **=Elim**:

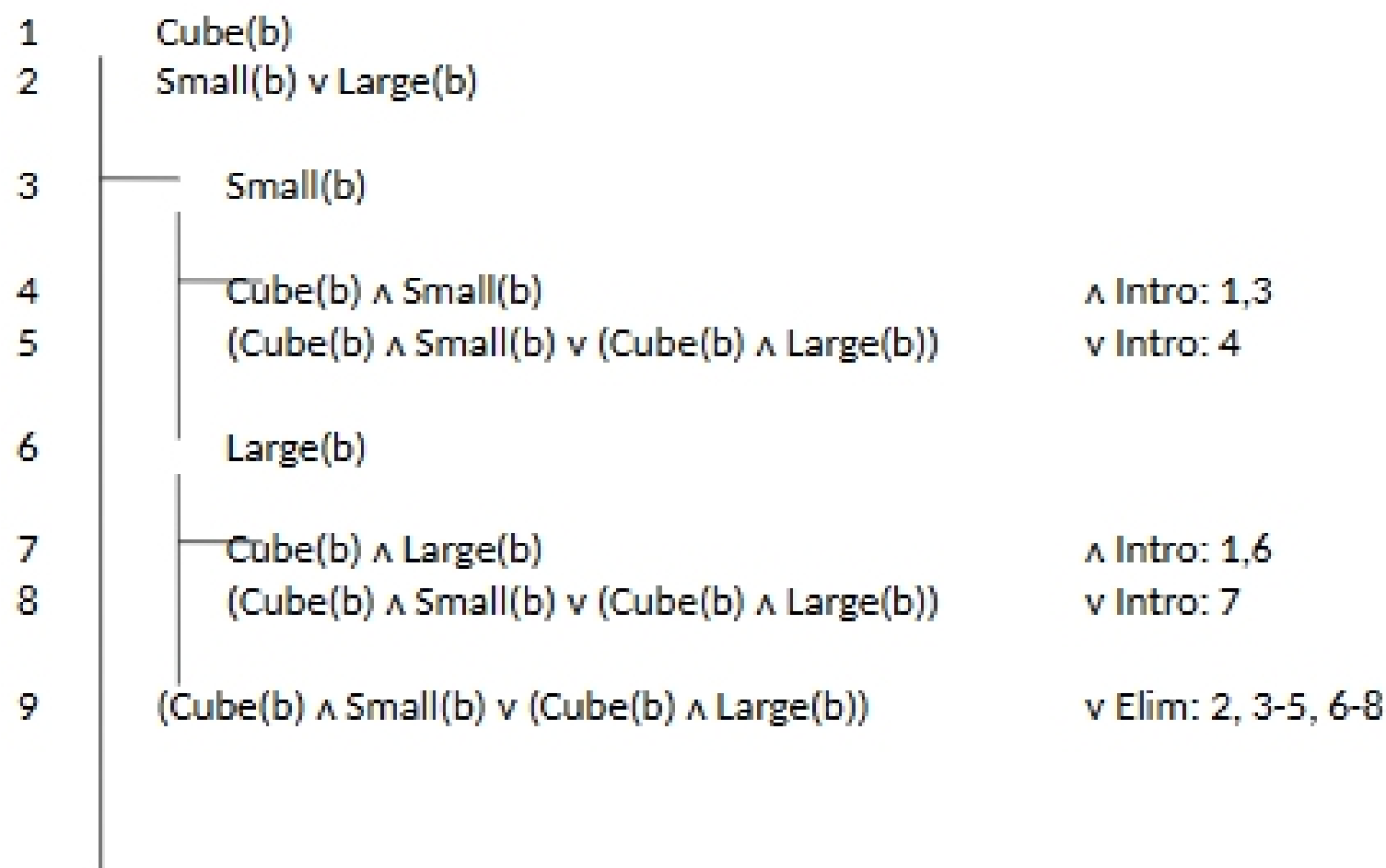
1	a = b \wedge b = c \wedge c = d	
2	a = b	\wedge Elim: 1
3	b = c	\wedge Elim: 1
4	a = c	= Elim: 2,3
5	c = d	\wedge Elim: 1
6	b = d	= Elim: 3,5
7	a = c \wedge b = d	\wedge Intro: 4,6

POWERPOINT SLIDES #6-12 Problem requires \wedge Elim and both disjunction rules

(The powerpoint slides provide commentary walking you through each step of the proof.)

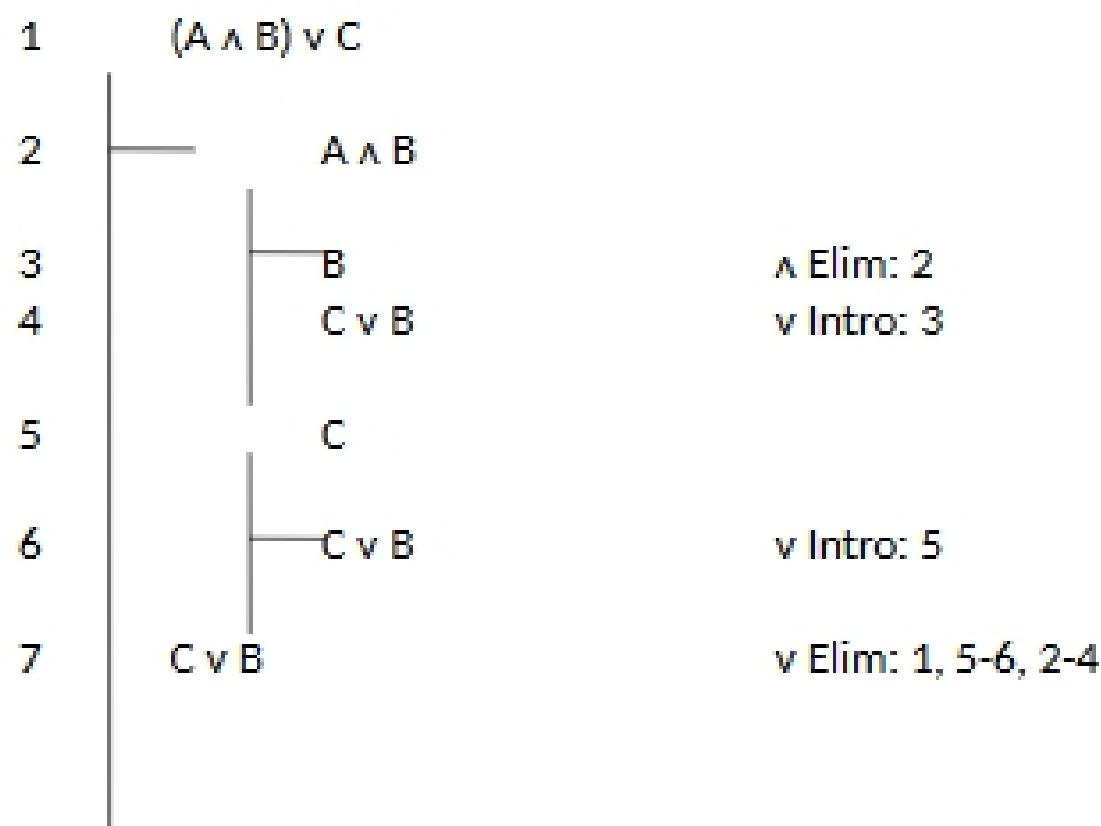


Fitch problem Proof Disjunction 2 Problem requires \wedge Intro and both disjunction rules



Fitch problem 6.4

Problem again requires \wedge Elim and both disjunction rules



Fitch problem 6.5

Problem requires **both conjunction rules** and **both disjunction rules** (and provides an example of needing to make a disjunction accessible first before it is available to use as basis of a disjunction elimination strategy)

