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Philos 12A
Klaus / 106

Assignment #6

Exercise 6.26

The proof starts with two premises: A∨(B∧C) and ¬B∨¬C∨D. The conclusion is A∨D. From this we have conjunction so we can evaluate by proof by cases. Starting under proving ¬B we know A is true so next, we evaluate B∧C. This gives us the subproof to a premise of ¬A and the conclusion of B based on elimination. We can also then conclude ¬¬A and A. Next, we look at proving the premise ¬C and start with A being true again and then we evaluate the same order of B∧C concluding this time C and then we still end up with ¬¬A and A. So now we know that A is true and we can also conclude that D is true based on the initial premises thus proving the conclusion of A∨D.