

Exercise Set 2

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For each of the following formulas either:

- a.* give an intuitionistic tableau proof. or
- b.* give a classical tableau proof and an intuitionistic counter-model, or
- c.* give a classical counter-model.

Here are the formulas.

1. $\neg(P \vee Q) \supset (\neg P \wedge \neg Q)$
2. $(\neg P \wedge \neg Q) \supset \neg(P \vee Q)$
3. $(P \supset Q) \supset (\neg Q \supset \neg P)$
4. $(\neg Q \supset \neg P) \supset (P \supset Q)$
5. $(\neg Q \supset \neg P) \supset \neg\neg(P \supset Q)$