Logic for AI — Master 1 IFI
Class Assignment #8: Argumentation

Andrea G. B. Tettamanzi
Université côte d'Azur
andrea.tettamanzi@univ-cotedazur.fr

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1 Extensions

Determine the complete, grounded, and preferred extensions for the following argumentation frameworks (here, $\rightarrow$ denotes the *attack* relation):

1. $a \rightarrow b,\ b \rightarrow a$

2. $a \rightarrow b,\ b \rightarrow a,\ b \rightarrow c$

3. $a \rightarrow b,\ b \rightarrow a,\ b \rightarrow c,\ c \rightarrow d,\ d \rightarrow c$

4. $a \rightarrow b,\ b \rightarrow c,\ c \rightarrow d,\ d \rightarrow e,\ e \rightarrow f,\ f \rightarrow e$

5. $a \rightarrow b,\ b \rightarrow c,\ c \rightarrow d,\ d \rightarrow c$

2 Labelings

Determine the complete labelings for the same argumentation frameworks as in the previous exercice.