

I Computational Argumentation

Exercise I

- (1½) 1. Represent the following dialogue as an argumentation framework.

Alice : I want to go home, let's take the metro !

Bob : We shouldn't take it, there is a strike today.

Bob : Moreover, using Uber would be faster.

Alice : According to the news, most of the trains are still running.

Alice : Uber is too expensive, much more than the metro.

- (½) 2. Will they take the metro ? Justify.

Exercise II

For the following abstract argumentation frameworks $F = (A, R)$, give a graphic representation, and compute their extensions for the different semantics (complete, preferred, stable, grounded).

- (2) 1. $A = \{a, b, c\}$, $R = \{(a, b), (b, a), (c, a), (a, c), (b, b)\}$
- (2) 2. $A = \{a, b, c, d\}$, $R = \{(d, b), (c, a), (d, c), (c, b)\}$
- (2) 3. $A = \{a, b, c, d, e\}$, $R = \{(b, a), (b, c), (c, b), (a, d), (d, c), (e, c), (c, e)\}$
- (2) 4. $A = \{a, b, c, x, y\}$, $R = \{(x, y), (x, a), (a, y), (a, b), (b, c), (c, a)\}$
- (2) 5. $A = \{a, b, c, d, e, f\}$, $R = \{(d, b), (d, c), (b, a), (e, c), (f, e), (d, f)\}$