Note on KR and Graph Mining

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1 Feature Comparison

1.1 IDP

Pro:

- can model inductive definitions
- allows core formulation in a high-level language (NP)
- handles aggregates
- has support for variety of constraints

Cons:

- cannot handle negative case NP^{NP} complexity
- cannot model subgraph isomorphism independence
- cannot handle dominance, i.e., when one model is preferred over another

ASP Mostly the same but in theory can handle NP^{NP}, in practice however, it would require encoding tricks and unavoidably lead to the same problem as in IDP – indexing homomorphism enumeration.

1.2 proB

Pro

- can model negative case
- can model subgraph isomorphism independence

Cons:

- cannot handle inductive definitions
- cannot handle different types of aggregates (? needs to be checked again)

the rest of constraints?