Entailment

rasmusvk

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1 sim:Marge rdf:type foaf:Person

1. fam:hasSpouse rdfs:domain foaf:Person -P
2. sim:Marge fam:hasSpouse sim:Homer -P
3. sim:Marge rdf:type foaf:Person -rdfs2, 1, 2

2 fam:hasSister rdfs:subPropertyOf fam:isRelativeOf

1. fam:hasSister rdfs:subPropertyOf fam:hasSibling -P
2. fam:hasSibling rdfs:subPropertyOf fam:isRelativeOf -P
3. fam:hasSister rdfs:subPropertyOf fam:isRelativeOf -rdfs5, 1, 2

3 sim:Marge rdf:type fam:Woman

Taken from oblig 4 RDF file under entailment:
10 sim:Marge
11 fam:hasSpouse sim:Homer .
As we see from the above, the only knowledge we have of Marge is that she has a spouse and that she is a spouse. That lets us know that Marge is a person, but we can't decide if the person Marge is a woman or a man.

4 sim:Herb rdf:type fam:Man

1. [ ] fam:hasBrother sim:Herb -P
2. fam:hasBrother rdfs:range fam:Man -P
3. sim:Herb rdf:type fam:Man -rdfs3 , 1,2

5 sim:Lisa fam:isRelativeOf sim:Homer

1. sim:Lisa fam:hasFather sim:Homer -P
2. fam:hasFather rdfs:subPropertyOf fam:HasParent -P
3. fam:hasParent rdfs:subPropertyOf fam:isRelativeOf -P
4. fam:hasFather rfds:subPropertyOf fam:isRelativeOf rdfs5, 2, 3
5. sim:Lisa fam:isRelativeOf sim:Homer -rdfs7, 1, 4

6 sim:Lisa fam:hasMother sim:Marge

Lisa has a blank node parent with the sisters selma and patty, but there is now way of proving that that parent is Marge

7 sim:Patty rdf:type foaf:Person

1. [ ] fam:hasSister sim:Patty -P
2. fam:hasSister rdfs:subPropertyOf fam:hasSibling -P
3. fam:hasSibling rdfs:subPropertyOf fam:isRelativeOf -P
4. fam:hasSister rfds:subPropertyOf fam:isRelativeOf rdfs5, 2, 3
5. [ ] fam:isRelativeOf sim:Patty -rdfs7, 1, 4
6. fam:isRelativeOf rdfs:range foaf:Person -P
7. sim:Patty rdf:type foaf:Person -rdfs3, 5, 6