

Lab 12 - Exercise 13.2

Sarah Griffioen

Facts

$\text{On}(A, B).$

$\text{On}(B, C).$

$\text{Supports}(\text{Table}, C).$

$\text{Supports}(X, Y) \rightarrow \text{On}(Y, X).$

$\text{On}(X, Y) \rightarrow \text{Above}(X, Y).$

$\text{Above}(X, Y) \wedge \text{Above}(Y, Z) \rightarrow \text{Above}(X, Z).$

Proof

$\text{Supports}(\text{Table}, C) \rightarrow \text{On}(C, \text{Table}).$

$\text{On}(C, \text{Table}) \rightarrow \text{Above}(C, \text{Table}).$

$\text{On}(B, C) \rightarrow \text{Above}(B, C).$

$\text{On}(A, B) \rightarrow \text{Above}(A, B).$

$\text{Above}(A, B) \wedge \text{Above}(B, C) \rightarrow \text{Above}(A, C).$

$\text{Above}(A, C) \wedge \text{Above}(C, \text{Table}) \rightarrow \boxed{\text{Above}(A, \text{table}).}$