

Thursday, February 21

Name _____

Email _____

6.s081 Spring 2019

Miniquiz #7

5 Minutes

Consider the parent relation $\text{Parent}(A, B) \subseteq \text{People} \times \text{People}$ that denotes that A is a parent of B. For example, $\text{Parent}(\text{Bob}, \text{Elise})$ denotes that Bob is a parent of Elise.

- 1) Define the meaning of a new relation $\text{Child}(A, B) \subseteq \text{People} \times \text{People}$ that denotes that A is a child of B by completing the following inference with a premise (or premises) above the line that only use the Parent relation.

$$\frac{\quad}{\text{Child}(A, B)}$$

- 2) Define the meaning of a new relation $\text{GrandParent}(A, B)$ that denotes that A is a grandparent of B by completing the following inference rule with a premise (or premises) that only use the Parent relation.

$$\frac{\quad}{\text{GrandParent}(A, B)}$$

- 3) Define the meaning of a new relation $\text{Ancestor}(A, B) \subseteq \text{People} \times \text{People}$ that denotes that A is an ancestor of B by providing an inference rule (or inference rules).