# Problem 10.3

Assume we have a language consisting of the object constant $a$ and the unary function constant $s$.

Prove the goal from the given premises.

| | | Proof Editor | |
|---|---|---|---|
| 1. | falls(a) | | Premise |
| 2. | AX:(falls(X) => falls(s(X))) | | Premise |
| 3. | AX:falls(X) | | Induction: 1, 2 |

| Goal | AX:falls(X) | | Complete  Submit |

| Assumption | Negation Introduction | Implication Introduction | Universal Introduction |
| Reiteration | Negation Elimination | Implication Elimination | Universal Elimination |
| Delete | And Introduction | Biconditional Introduction | Existential Introduction |
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