

Lab 8

John is a human
 Humans can speak English

John can speak English.

Problems

1. All humans can speak English.

$$\forall x (H(x) \rightarrow S(x))$$

2. John is a human

$$H(\text{John})$$

3. John can speak English

$$S(\text{John})$$

Proof.

1. $\forall x (H(x) \rightarrow S(x))$ (Premise)

2. $H(\text{John})$ (Premise)

3. $\forall x (H(x) \rightarrow S(x))$, we conclude $H(\text{John}) \rightarrow S(\text{John})$.

4. Modus Ponens: From $H(\text{John})$ and

$$H(\text{John}) \rightarrow S(\text{John}) \text{ we conclude } S(\text{John}).$$

Conclusion:

Proved that John can speak English.

Output:

John can speak English.

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