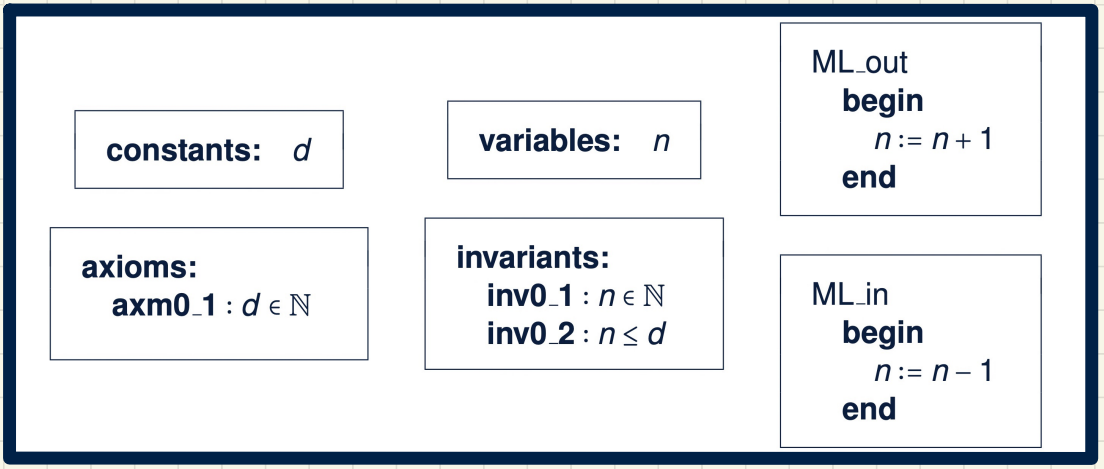
PO/VC Rule of Invariant Preservation: Sequents



$$A(c)$$
$$I(c, v)$$
$$G(c, v)$$
$$\vdash$$
$$I_i(c, E(c, v))$$

Q. How many PO/VC rules for model m0?

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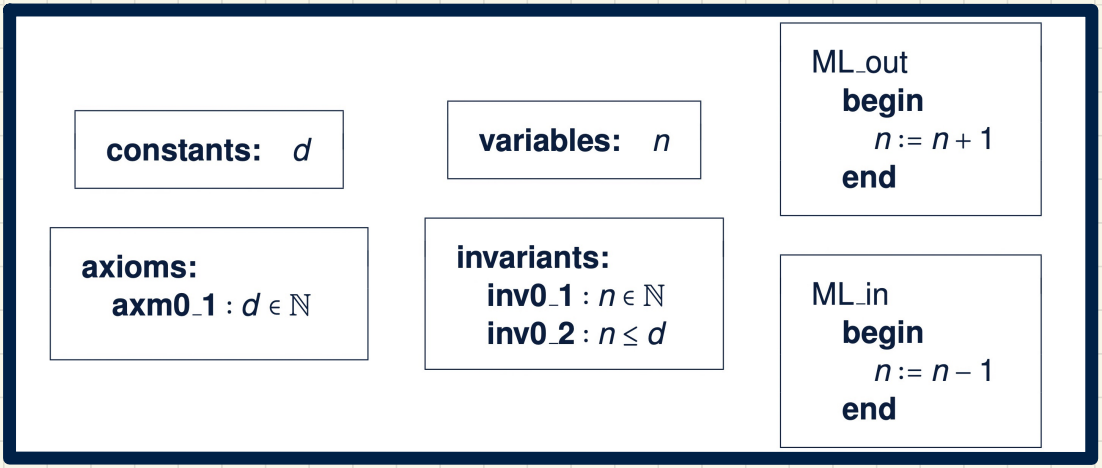

$$A(c)$$
$$I(c, v)$$
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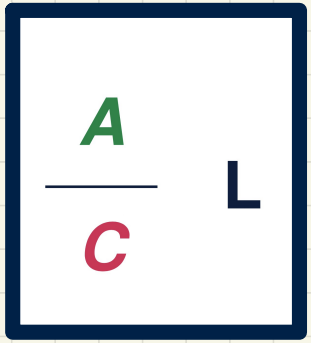
$$\vdash$$
$$I_i(c, E(c, v))$$

Inference Rule: Syntax and Semantics

Syntax



Semantics

Q. What does it mean when A is empty/absent?

Examples

Proof of Sequent: Steps and Structure

Outstanding Sequent to Prove

$$d \in \mathbb{N}$$
$$n \in \mathbb{N}$$
$$n \leq d$$
$$\vdash$$
$$n + 1 \in \mathbb{N}$$

ML_out/inv0_1/INV

Known Inference Rules

$$\frac{H1 \vdash G}{H1, H2 \vdash G}\ \textbf{MON}$$

$$\frac{}{n \in \mathbb{N} \vdash n + 1 \in \mathbb{N}}\ \textbf{P2}$$

Understanding Inference Rule: OR_L

$$\frac{H, P \vdash R \qquad H, Q \vdash R}{H, P \vee Q \vdash R}\ \textbf{OR\_L}$$