

$$\text{P138 } 5(1) \quad \overline{P_1^{(1)}(v_1)} \not\models \forall v_1 P_1^{(1)}(v_1)$$

$$\text{取 } D = \{1, 2\}, \quad \overline{P_1^{(1)}} = \{1\}, \quad \overline{v_1} = s(v_1) = 1$$

$$\overline{P_1^{(1)}(v_1)} = 1 \quad \text{iff} \quad \overline{v_1} \in \overline{P_1} \quad \text{iff} \quad 1 \in \{1\}$$

$$\overline{\forall v_1 P_1^{(1)}(v_1)} = 1 \quad \text{iff} \quad \models P_1^{(1)}(v_1)[s(v_1|1)] \quad \text{并且} \quad \models P_1^{(1)}(v_1)[s(v_1|2)]$$

$\text{iff} \quad \overline{v_1} \in \overline{P_1}$ $\quad \quad \quad \nearrow$ $\quad \quad \quad s(v_1 1)$ $\text{iff} \quad 1 \in \{1\}$	$\text{并且} \quad \overline{v_1} \in \overline{P_1}$ $\quad \quad \quad \nearrow$ $\quad \quad \quad s(v_1 2)$ $\text{并且} \quad 2 \in \{1\}$
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$$\text{从而} \quad \overline{P_1^{(1)}(v_1)} = 1 \quad \text{但是} \quad \overline{\forall v_1 P_1^{(1)}(v_1)} = 0$$