

Knowledge base for Wumpus world

Atomic Proposition Variables for Wumpus world

- ① let $P_{i,j}$ be true if there is a pit in the room $[i,j]$
- ② let $B_{i,j}$ be true if agent perceives breeze in $[i,j]$
- ③ let $W_{i,j}$ be true if there is Wumpus in square $[i,j]$
- ④ let $S_{i,j}$ be true if agent perceives stench in $[i,j]$
- ⑤ let $V_{i,j}$ be true if that square $[i,j]$ is visited

$$R_1 \Rightarrow \neg S_{11} \Rightarrow \neg W_{11} \wedge \neg W_{12} \wedge \neg W_{21} \quad \checkmark$$

$$R_2 \Rightarrow \neg S_{21} \Rightarrow \neg W_{11} \wedge \neg W_{21} \wedge \neg W_{22} \wedge \neg W_{31}$$

$$R_3 \Rightarrow \neg S_{12} \Rightarrow \neg W_{11} \wedge \neg W_{12} \wedge \neg W_{22} \wedge \neg W_{13} \quad \checkmark$$

$$R_4 \Rightarrow S_{12} \Rightarrow W_{13} \vee W_{12} \vee W_{22} \vee W_{11} \quad \checkmark$$