

SAJAL SHRESTHA

Quiz [1]

Date \_\_\_\_\_

① ②  $\rightarrow \forall x \text{ Dog}(x) \Rightarrow \exists y \text{ Messy}(y)$

① ③  $\rightarrow \forall x \text{ Pig}(x) \Rightarrow \text{Messy}(x)$

① ④  $\rightarrow \forall x \text{ Plate}(x) \wedge \text{Person}(x) \wedge \text{Wearing}(x)$   
~~Disorderly(x)  $\wedge$  Disgusting(x)  $\wedge$  Gross(x)~~

① ⑤  $\rightarrow \forall x \text{ Person}(x) \wedge \text{Reading}(x)$   
~~LookingAtClock(x)  $\wedge$  KnownTime(x)~~

① ⑥  $\rightarrow \forall x \forall y \text{ Watch}(x) \text{ Person}(y) \wedge \text{LookingAtWatch}(x)$   
②  $\Rightarrow \text{knownTime}(x)$

① ⑦  $\rightarrow \forall x \forall y \text{ Watch}(x) \text{ Person}(y) \wedge \text{Looking}(x) \wedge$   
 $\text{knownTime}(y)$

② ⑧  $\rightarrow \neg B_{11} \mid \neg P_{11} \mid \neg Wumpus_{11} \mid \neg Gold_{11}$

② ⑨  $\rightarrow \text{pre} \dots$

START

post  $\text{At}_{11} \mid \neg B_{11} \mid \neg P_{11} \mid \neg G_{11} \mid \neg W_{11}$

FINISH

post

② ⑩  $\rightarrow \text{At}_{xx} \mid \text{LEFT}$

At<sub>xy</sub>

DOWN

At<sub>xy</sub>

UP

At<sub>xy</sub>

RIGHT

At<sub>x-1y</sub>  $\mid \neg At_{xy}$

At<sub>xy-1</sub>  $\mid \neg At_{xy}$

At<sub>xy+1</sub>  $\mid \neg At_{xy}$

At<sub>xy+1</sub>  $\mid \neg At_{xy}$

②(c)  $\text{At}_{xx}, x-1 > 0, \neg \text{B}_{xy}$

LEFT

$\text{At}_{x-1y} \neg \text{At}_{xy}$

②(f)  $\neg P_{21}, \neg B_{21}, \text{At}_{21}, \neg \text{Wumpus}_{21}, \neg \text{Gold}_{21}$

$\neg B_{11}, \neg P_{11}, \neg \text{Wumpus}_{11}, \neg \text{Gold}_{11}$  ~~gold~~

②(g)  $\neg P_{12}, \neg B_{12}, \text{At}_{12}, \neg \text{Wumpus}_{12}, \neg \text{Gold}_{12}$

$\text{Stench}_{12}, \dots$  and rest from previous  
2 status.

③(a)  $\forall x, t \text{ Agent}(x) \text{ Tile}(t) \text{ At}(x, t) \wedge \text{Breeze}(t)$   
 $\Rightarrow \text{Breeze}(t)$

③(b)  $\forall x, t \text{ Agent}(x) \text{ Tile}(t) \text{ At}(x, t) \wedge \neg \text{Breeze}(t)$   
 $\Rightarrow \neg \text{Breeze}(t)$

— END —