Sudoku

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1 section1

this is a sentence.

$$E = MC^2E_a \tag{1}$$

game status

P1 \P2	rock	scissor	paper
rock		P1	P2
scissor	P2		P1
paper	P1	P2	

Player 1 status

R	S	P	R_2	S_2	P_2	Win_1	Win_2	$Draw$	Satisfied
T	F	F	T	F	F	F	F	F	F
T	F	F	F	T	F	T	F	F	T
T	F	F	F	F	T	F	F	F	F
F	T	F	T	F	F	F	F	F	F
F	T	F	F	T	F	F	F	F	F
F	T	F	F	F	T	T	F	F	F
F	F	T	T	F	F	T	F	F	F
F	F	T	F	T	F	F	F	F	F
F	F	T	F	F	T	F	F	F	F
T	F	F	T	F	F	F	F	F	F
T	F	F	F	T	F	T	F	F	T
T	F	F	F	F	T	F	F	F	F
F	T	F	T	F	F	F	F	F	F
F	T	F	F	T	F	F	F	F	F
F	T	F	F	F	T	T	F	F	F
F	F	T	T	F	F	T	F	F	F
F	F	T	F	T	F	F	F	F	F
F	F	T	F	F	T	F	F	F	F

R	S	P	R_2	S_2	P_2	Win_1	Win_2	$Draw$	Satisfied
T	F	F	T	F	F	F	F	T	T
T	F	F	F	T	F	T	F	F	T
T	F	F	F	F	T	F	T	F	T
F	T	F	T	F	F	F	T	F	T
F	T	F	F	T	F	F	F	T	T
F	T	F	F	F	T	T	F	F	T
						.			
						.			
						.			
T	T	F	T	F	F	F	F	F	F

$$fact1 \wedge fact2 \wedge fact3 \wedge \cdots \wedge factN$$

$$(A \vee B \vee C \dots) \wedge (D \vee E \vee F \dots) \wedge (\dots$$

(A or B or C ...) and (D or E or F ...) and (....

$P \Rightarrow Q$

P	Q	$P \Rightarrow Q$
T	T	T
F	T	T
F	F	T
T	F	F

$$R_{ock} \Leftrightarrow \neg P_{aper} \wedge \neg S_{cissor} \tag{2}$$

$$(R_{ock} \vee (\neg P_{aper} \wedge \neg S_{cissor})) \wedge (\neg R_{ock} \vee \neg P_{aper} \vee \neg S_{cissor}) \tag{3}$$

$$(R \vee S \vee P) \tag{4}$$

$$(\neg R \vee (\neg S \wedge \neg P)) \wedge (R \vee S \vee P) \tag{5}$$

$$(\neg R \vee (\neg S \wedge \neg P)) \tag{6}$$

$$(\neg R \vee (\neg S \wedge \neg P)) \wedge (\neg S \vee (\neg R \wedge \neg P)) \wedge (\neg P \vee (\neg S \wedge \neg R)) \tag{7}$$

$$(\neg R \vee \neg P) \wedge (\neg R \vee \neg S) \wedge (\neg S \vee \neg P) \tag{8}$$

$$\underbrace{(\neg R \vee \neg P) \wedge (\neg R \vee \neg S) \wedge (\neg S \vee \neg P)}_{at\ most\ one} \wedge \underbrace{(R \vee S \vee P)}_{at\ least\ one} \tag{9}$$

math	python
$\neg$	not
$\sim$	not
$\vee$	or
$\wedge$	and

$$P \Rightarrow R1, R \Rightarrow S1, S \Rightarrow P1 \tag{10}$$

$$(\neg P \vee R) \wedge (\neg P \vee S) \wedge (\neg R \vee S) \tag{11}$$

$$R_{(x,y)} \tag{12}$$

$$R_{(0,0)}, R_{(width,height)} \tag{13}$$

$$(R_{(0,0)}) \wedge (R_{(width,height)}) \wedge \dots \tag{14}$$