Sheet1

Initial state: Game is set up.

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
white_checkers						5		3					5											2	white_bar	0
red_checkers	2											5					3		5						red_bar	0

1 White player rolls dice: 4 5   double_cub 1
2 Red player rolls dice: 3 4, white starts.

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
white_checkers						3		3		1	1		5											2	white_bar	0
red_checkers	2											5					3		5						red_bar	0

4 Red rolls: 3 3. Moves 19->16, 19->16, 19->16, 19->16.   double_cub 1

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
white_checkers						3		3		1	1		5											2	white_bar	0
red_checkers	2											5				4	3		1						red_bar	0

5 White rolls: 3 5. Moves 6->9, 6->11.   double_cub 1

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
white_checkers						1		3	1	2	1		5											2	white_bar	0
red_checkers	2											5				4	3		1						red_bar	0

6 Red rolls: 5 2. Moves 19->17, 16->11. White checker goes 11->white bar.   double_cub 1

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
white_checkers						1		3	1	2			5											2	white_bar	1
red_checkers	2										1	5				3	3		1						red_bar	0

7 White rolls: 2 4. Moves bar->4, 6->8.   double_cub 1

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
white_checkers				1				4	1	2			5											2	white_bar	0
red_checkers	2										1	5				3	3		1						red_bar	0

double_cub 1

[Game continues]

Initial state: Endgame. White's turn to roll.

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
white_checkers																					2	1		2	white_bar	0
red_checkers	2																								red_bar	0

n   White rolls: 3 4. Moves 22->out, 21->out.   double_cub 1

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
white_checkers																					2	1		2	white_bar	0
red_checkers	2																								red_bar	0

n+1 Red rolls: 4 5. Moves 1->out, 1->out. Red wins.   double_cub 1

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
white_checkers																					2	1		2	white_bar	0
red_checkers																									red_bar	0
																									double_cub	1