Game of SKUNK

S	K	U	N	K

Each letter of "skunk" represents a different round of the game; play begins with the "S" column and continues through the "K" column. The object of "skunk" is to accumulate the greatest possible point total over the five rounds. The rules for play are the same for each of the five rounds.

To accumulate points in a given round, a pair of dice is rolled.

A player gets the total of the dice and records it in his or her column, unless a "one" comes up.

If a "one" comes up, play is over for that round and all the player's points in that column are wiped out.

If "double ones" come up, all points accumulated in prior columns are wiped out as well.

If a "one" doesn't occur, the player may choose either to try for more points on the next roll or to stop and keep what he or she has accumulated.

Note: *If a "one" or "double ones" occur on the very first roll of a round, then that round is over and the player must take the consequences.*

Skunk Game

Player 1

S	K	U	N	K
7	4	8	5	7
8		6	11	4
7		14	16	0
22	0			0

rolled 2nd & got ... so score is reset to zero

stopped after 3rd roll

rolled 1st & got ... So Score is reset to Zero

stopped after 2nd roll

rolled 2nd time & got ... So Score is reset to Zero

stopped after 2nd roll

Player 2

S	K	U	N	K
11	6	6	7	7
5	6	8	9	5
	11	14	16	8
0	23			20

stopped after 3rd roll

stopped after 2nd roll

stopped after 3rd roll

stopped after 2nd roll

$$\sum \text{Score} \; \text{Player 1} = 22 + 0 + 14 + 16 + 0$$
$$= 52$$

"," Player 1 is the loser after playing 10 rounds

$$\sum \text{Score} \; \text{Player 2} = 0 + 23 + 14 + 16 + 20$$
$$= 73$$

"," Player 2 is the Winner after playing 12 rounds

Skunk Game - Failure Rules

If (one of the 2 dice is a One)

then (you lose points for that round)

If (you get Snake eyes)

then (you lose points for that round & you also lose points for all the previous rounds as well)

1,1
1,2
1,3
1,4
1,5
1,6

2,1
2,2
2,3
2,4
2,5
2,6

3,1
3,2
3,3
3,4
3,5
3,6

4,1
4,2
4,3
4,4
4,5
4,6

5,1
5,2
5,3
5,4
5,5
5,6

6,1
6,2
6,3
6,4
6,5
6,6

Total Combinations from rolling 2 dies = 36

$$P\left(\begin{array}{c}\text{one of the 2 dies}\\\text{has a value of 1}\end{array}\right) = \frac{\overset{\text{all Combinations in which one of the dies can have 1}}{(1,1)+(1,2)+(1,3)+(1,4)+(1,5)+(1,6)+(2,1)+(3,1)+(4,1)+(5,1)+(6,1)}}{\underset{\text{from rolling 2 dies}}{\text{Total Combinations}}}$$

$$= \frac{11}{36} = 30.55\% \text{ of losing Current rounds Score in the skunk game}$$

$$P\left(\begin{array}{c}(1,1)\text{ snake eyes}\\\text{Combo during}\\\text{dice rolls}\end{array}\right) = \left(\frac{1}{6}\right) * \left(\frac{1}{6}\right) = \frac{1}{36} = 2.77\% \text{ of losing all rounds Score due to rolling } (1,1) \text{ in the skunk game}$$

Independant Probability of the 1st die giving a one

Independant Probability of the 2nd die giving a one