



RAVENHALL

SICHERMAN DICE GAMES

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Probability – Prediction – Deduction – Risk – Addition

SICHY!

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NATURE of GAME: *Sichy!*TM is a simple probability and prediction game for two or more players, 8 years of age and older. A player uses two pair of 6-sided dice – one pair of standard 6-sided dice (each die numbered 1-2-3-4-5-6) and one pair of Sicherman dice (one die numbered 1-2-2-3-3-4, the other die numbered 1-3-4-5-6-8). A pair of Sicherman dice has the same probability of results as does a pair of standard 6-sided dice, but uses different number combinations. So, *Sichy!*TM exposes mathematical probability in different ways, and challenges the player to consider multiple factors when predicting.

REQUIREMENTS and SET-UP: One pair of standard 6-sided dice, one pair of Sicherman dice, one score sheet and one pen or pencil per player. Sit at a table or other flat surface where all rolls are visible to all players. Setup < 1 minute. Game play 15-20 minutes.

WINNING: After five rounds, the player with the most points wins. If there is a tie, the tied players will extend play for one tie-breaking round, during which each player must seek every available bonus and make every available challenge.

GAME PLAY: Each player uses a **score sheet** to select from among all possible rolled results, to **predict rolled results for each pair of dice** (one standard pair, and one Sicherman pair) **and for each individual Sicherman die**. Players start with five points each, and can risk points to challenge each other if they believe they can make a more accurate prediction. If any player accurately predicts a rolled result, the player is rewarded points in inverse relation to the probability of that result. For example, *seven* is statistically the most likely result of a roll of a pair of standard dice, so if a player predicts the roll will result in a *seven*, then the player will receive the fewest points. A player may consider the lower points worth the prediction, since there should be a higher chance of scoring. Or a player may accept a lower chance of scoring, by predicting a result that is much less likely, such as a *three*, knowing that a successful roll will provide more points due to the lower probability. Balancing probability and reward will test a player's personal risk tolerance and strategic thinking.

A player could earn zero points throughout the game, even by predicting the most likely result each roll, because a likelihood of results does not necessarily translate into actual results. This is a basic challenge to any prediction based on probability.

Players **select who goes first**, then play advances **clockwise**.

During each turn, Player One (**Initiator**) predicts any two results (one for each pair of dice) and marks the predicted results on the score sheet. The Initiator may also predict individual Sicherman die results for bonus points on the same score sheet, if Initiator is willing to pay a point per individual die prediction. Any such points are deducted from Initiator's running total of points on the score sheet. Initiator then announces the predictions and prepares to roll the dice.

Opponents may **challenge** each Initiator's predictions before dice are rolled. A player can challenge up to twice per round. If so, the challenger must pay points on the score sheet for the privilege of challenging. Each challenge (per pair or per die) costs one point, deducted from that challenger's running total of points

SICHY! SCORE SHEET

Player: _____

ROUNDS	Total Opening Points	- DEDUCTIONS Pay One Point Per Challenge / Bonus	FIRST PAIR PREDICTION: STANDARD 6	WILD PAIR PREDICTION: SICHERMAN*	Predict 1-2-2-3-3-4 Bonus	Predict 1-3-4-5-6-8 Bonus	+ POINTS For Each Prediction	New Total (Carry Forward)
1. As Initiator	5 (if start)						PAIRS (*x2)	
1. As Challenger	5 (if start)						2= 12 pts	
1. As Challenger							3= 10 pts	
2. As Initiator							4= 8 pts	
2. As Challenger							5= 6 pts	
2. As Challenger							6= 4 pts	
3. As Initiator							7= 2 pts	
3. As Challenger							8= 4 pts	
3. As Challenger							9= 6 pts	
4. As Initiator							10= 8 pts	
4. As Challenger							11= 10 pts	
4. As Challenger							12= 12 pts	
5. As Initiator							BONUS	
5. As Challenger							4 points	
5. As Challenger							Except 2 pts	
FINAL SCORE							for 2-2-3-3	

SICHY! SCORE SHEET

Player: _____

ROUNDS	Total Opening Points	- DEDUCTIONS Pay One Point Per Challenge / Bonus	FIRST PAIR PREDICTION: STANDARD 6	WILD PAIR PREDICTION: SICHERMAN*	Predict 1-2-2-3-3-4 Bonus	Predict 1-3-4-5-6-8 Bonus	+ POINTS For Each Prediction	New Total (Carry Forward)
1. As Initiator	5 (if start)						PAIRS (*x2)	
1. As Challenger	5 (if start)						2= 12 pts	
1. As Challenger							3= 10 pts	
2. As Initiator							4= 8 pts	
2. As Challenger							5= 6 pts	
2. As Challenger							6= 4 pts	
3. As Initiator							7= 2 pts	
3. As Challenger							8= 4 pts	
3. As Challenger							9= 6 pts	
4. As Initiator							10= 8 pts	
4. As Challenger							11= 10 pts	
4. As Challenger							12= 12 pts	
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FINAL SCORE							for 2-2-3-3	