

Comprehensive Hand Probability Solver

Zilch: Serendipity Creak Edition

This table shows the probability of rolling each outcome type based on the number of dice rolled.

Hand Probability by Dice Count

Single Scoring Outcomes

Dice	Zilch	Single 1s/5s Only
1	66.68%	33.32%
2	44.40%	55.60%
3	27.76%	69.49%
4	15.77%	74.58%
5	7.74%	67.89%
6	2.33%	47.82%

Key Insight: The probability of Zilching drops dramatically as dice count increases. Single 1s/5s peak at 4 dice (74.58%) before declining as multi-die combinations become more common.

Multiple-of-a-Kind Outcomes

Dice	3-of-a-Kind	4-of-a-Kind	5-of-a-Kind	6-of-a-Kind
1	—	—	—	—
2	—	—	—	—
3	2.76%	—	—	—
4	9.19%	0.46%	—	—
5	19.29%	1.90%	0.08%	—

Dice	3-of-a-Kind	4-of-a-Kind	5-of-a-Kind	6-of-a-Kind
6	30.79%	4.81%	0.39%	0.01%

Key Insight: 3-of-a-Kind probability increases steadily with more dice. At 6 dice, you have a ~31% chance of rolling at least one triplet. 6-of-a-Kind is extremely rare (0.01%).

Straight Outcomes

Dice	Small Straight	Large Straight	Full Straight
1	—	—	—
2	—	—	—
3	—	—	—
4	—	—	—
5	1.57%	1.54%	—
6	3.88%	3.87%	1.54%

Key Insight: Straights require at least 5 dice. Small and Large Straights are equally likely (~1.5% with 5 dice, ~3.9% with 6 dice). Full Straight is rare at 1.54%.

Special Combination Outcomes

Dice	Three Pair / Two Triplets
1	—
2	—
3	—
4	—
5	—
6	4.55%

Key Insight: Three Pair and Two Triplets require all 6 dice. Combined probability is 4.55%, making them moderately rare but more common than Full Straight (1.54%).

Summary Statistics

Zilch Risk by Dice Count

Dice	Zilch Probability	Risk Level
1	66.68%	 Very High
2	44.40%	 High
3	27.76%	 Moderate
4	15.77%	 Low
5	7.74%	 Very Low
6	2.33%	 Minimal

Most Likely Outcome by Dice Count

Dice	Most Likely Outcome	Probability
1	Zilch	66.68%
2	Single 1s/5s Only	55.60%
3	Single 1s/5s Only	69.49%
4	Single 1s/5s Only	74.58%
5	Single 1s/5s Only	67.89%
6	Single 1s/5s Only	47.82%

Key Insight: Single 1s/5s are the most common scoring outcome across all dice counts that can score, though at 6 dice, 3-of-a-Kind (30.79%) becomes increasingly competitive.