

Pyramid Poker Complete Game Rules

Game Overview

Pyramid Poker is a strategic card game based on Chinese Poker with unique special hands, automatic win conditions, and sophisticated betting mechanics.

Game Variations

Phase 1: No-Surrender Version (Current Implementation)

- **Cards:** 17 cards dealt to each player
- **Arrangement:** Players arrange all 17 cards into three hands
- **Scoring:** Head-to-head comparison, point-based scoring
- **No ante or surrender options**

Phase 2: Standard Version (Full Game)

- **Ante:** 20 units required to participate
- **Initial Deal:** 13 cards per player
- **Decision Phase:** Play (continue) or Surrender (fold)
- **Kitty:** 4 additional cards dealt face-down to continuing players
- **Final Arrangement:** 17 total cards arranged into three hands
- **Pot:** Winner takes all antes and surrender penalties

Standard Game Setup

Equipment

- **Cards:** 2 standard decks (104 cards) + 2 wild cards = 106 total
- **Players:** 3-6 players (optimal: 6 players × 17 cards = 102, leaving 4 for kitty)
- **Wild Cards:** 2 jokers (count as spades for tiebreakers, except in flushes/straight flushes)

Deal Structure

- **Initial:** 13 cards per player (78 total)
- **Remaining:** 28 cards (24 undealt + 4 kitty)
- **Kitty:** 4 cards dealt face-down after play/surrender decisions

Standard Game Flow

1. Ante Phase

- All players contribute 20 units to the pot

2. Initial Deal

- Each player receives 13 cards
- Players examine their hands privately

3. Decision Phase

Players simultaneously decide:

- **Play:** Continue in the hand (risk current ante)
- **Surrender:** Fold and pay additional 10 units penalty to pot

4. Kitty Phase

- Surrendered players are eliminated
- 4 cards dealt face-down to remaining players
- Players now have 17 cards total

5. Arrangement Phase

- Players arrange 17 cards into three hands:
 - **Back Hand:** 5-8 cards (strongest)
 - **Middle Hand:** 5-7 cards (medium strength)
 - **Front Hand:** 3 or 5 cards (weakest)
- **Rule:** Back \geq Middle \geq Front (strength ordering)

6. Automatic Detection

Before normal scoring, check for automatic win conditions (in order of precedence):

1. **Three Full Houses** (beats all other automatics)
2. **Dragon** (A-K-Q-J-10-9-8-7-6-5-4-3-2 of any suits)
3. **Three Straights** (beats three flushes)
4. **Three Flushes** (lowest automatic)

7. Scoring Phase

Automatic vs Non-Automatic

- **Automatic winner:** +3 points from each non-automatic player

Automatic vs Automatic

- **Higher precedence:** Automatic beats lower automatic (+3 points)
- **Same type:** Hand-by-hand comparison
 - **Dragons:** Tiebreaker by Ace suit (♠ > ♥ > ♦ > ♣)
 - **Three Full Houses/Straights/Flushes:** Compare back vs back, middle vs middle, front vs front
 - Win 3/3 hands: +3 points from opponent
 - Win 2/3 hands: +1 point from opponent
 - Lose: Negative points to opponent
 - Push: Split/special calculation

Normal Hand Scoring (No Automatics)

- **Head-to-head comparison:** Each player vs every other player
- **Position scoring:** Compare back vs back, middle vs middle, front vs front
- **Point values:** 2× normal Pyramid Poker points
- **Net calculation:** Total points won - total points lost

8. Pot Distribution

- **Winner:** Player with highest net point total
- **Prize:** Entire pot (all antes + surrender penalties)

Hand Rankings and Point Values

Standard Hands (5 cards or fewer)

Hand Type	Front	Middle	Back
High Card/Pair/Two Pair	1	1	1
Three of a Kind	3	1	1
Straight	4	1	1
Flush	4	1	1
Full House	5	2	1
Four of a Kind	12	8	4
Straight Flush	15	10	5
Five of a Kind	18	12	6

Special Large Hands (6-8 cards)

Hand Type	Front	Middle	Back
6-card Straight Flush	N/A	16	8
7-card Straight Flush	N/A	22	11
8-card Straight Flush	N/A	N/A	14
6 of a Kind	N/A	20	10
7 of a Kind	N/A	28	14
8 of a Kind	N/A	N/A	18

Special Rules

- **Front 5-card hands:** Must be straight or better
- **Large hands:** Only straight flushes or of-a-kind combinations allowed
- **Standard scoring:** All points doubled (×2) in standard version

Automatic Win Conditions

Dragon (Guaranteed with 13 cards)

- **Pattern:** A-K-Q-J-10-9-8-7-6-5-4-3-2 (one of each rank)
- **Suits:** Any combination of suits
- **Certainty:** Can be guaranteed before kitty phase

Three Full Houses (Requires kitty)

- **Pattern:** All three hands are full houses
- **Precedence:** Beats dragon and all other automatics

- **Uncertainty:** Requires specific cards from kitty to complete

Three Straights (Requires kitty)

- **Pattern:** All three hands are straights
- **Precedence:** Beats three flushes
- **Uncertainty:** Requires specific cards from kitty to complete

Three Flushes (Requires kitty)

- **Pattern:** All three hands are flushes
- **Precedence:** Lowest automatic
- **Uncertainty:** Requires specific cards from kitty to complete

Automatic Tiebreakers

- **Dragon vs Dragon:** Compare by suit of Ace ($\spadesuit > \heartsuit > \diamondsuit > \clubsuit$)
- **Same automatic type:** Hand-by-hand comparison of individual hands
- **Push conditions:** Possible but rare across all automatic types

Wild Card Rules

General Rules

- **Default suit:** Wild cards count as spades (\spadesuit) for all tiebreaker calculations
- **Exception:** When completing flushes or straight flushes, wilds take the suit of that hand

Automatic Impact

- **Easier completion:** Wilds make automatics more achievable
- **Tiebreaker advantage:** Wild-completed automatics benefit from spade precedence
- **Strategic complexity:** Optimal wild allocation between automatics and arrangements

Strategic Decision Points

13-Card Phase

1. **Guaranteed Dragon:** Take automatic win vs risk for higher value
2. **Potential Automatic:** Risk ante on uncertain kitty completion
3. **Strong Arrangement:** Compete with optimized hand arrangements
4. **Weak Hand:** Cut losses with surrender

17-Card Phase





1. **Automatic vs Arrangement:** Guaranteed points vs pot competition
2. **Wild Card Allocation:** Where to use wilds for maximum expected value
3. **Risk Assessment:** Hand strength vs likely opponent capabilities
4. **Position Optimization:** Which hands to place in front/middle/back

Advanced Considerations







- **Player Count Impact:** 3 vs 6 players changes baseline win probabilities
- **Pot Size Analysis:** Surrender penalties affect pot value calculations
- **Opponent Modeling:** Reading surrender patterns and hand strength signals
- **Expected Value:** Balancing guaranteed automatic points vs pot upside

Development Phases

Phase 1 (Current): No-Surrender Implementation

-  17-card arrangement optimization
-  0-2 wild card support
-  Complete hand detection and scoring
-  300+ test case validation

Phase 2 (Future): Standard Game Implementation

-  13-card evaluation and decision making
-  Automatic detection and strength assessment
-  Kitty probability modeling
-  Play/surrender decision optimization
-  Pot equity calculations
-  Full economic game mechanics

Game Designer: Human Player

Current Implementation: Phase 1 (No-Surrender)

Target Implementation: Phase 2 (Complete Standard Rules)

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