## Notes on some poker variations

The Rick ..... 2
The Ricky ..... 4
The Harvey ..... 6
Tic Tac Toe ..... 8
Pyramid ..... 10
Bundles ..... 12
Triple Harvey ..... 14
Wild Card Triple Harvey ..... 16
Harvey Two Four ..... 18
Three Card Triple Harvey ..... 20
The Neal ..... 22
Omaha ..... 24
Pick Your Own Wild Card for High Hand Only ..... 29
Seven Twenty-Seven ..... 31
Two-Eyed Face Cards Wild ..... 32
Two Three All ..... 34

Below are descriptions and brief analyses of some poker variations played at a friendly weekly game. All results are averages based on 100,000 simulations per game. In actual play, one must obviously consider what hands are possible given the cards displayed and any dealer-imposed limitations (e.g., 8 -low or better to win low).

## Notes on some poker variations

## The Rick

Deal four cards to each player, then one row of four cards and one row of two cards face down. Use two cards from your hand, two from the four-card row and one from the twocard row. There are 72 different card combinations to make up the player's hand.

The median high hand was two pair kings over nines. There is about a $15 \%$ chance of getting a flush or better and about a $30 \%$ chance of getting a straight or better. There is over a $30 \%$ chance of a full house if there are five players (next page).

Regarding low hands, the median low hand was a nine-seven low. There is a $20 \%$ chance of a seven low or better and almost a $40 \%$ chance of an eight low or better. There is almost a $25 \%$ chance of a 6 -low if there are five players (next page).

| The Rick |  |
| ---: | ---: |
|  |  |
| High Hands | Frequency |
| Straight Flush | $0.1 \%$ |
| Quads | $0.6 \%$ |
| Full House | $7.5 \%$ |
| Flush | $7.4 \%$ |
| Straight | $13.6 \%$ |
| Trips | $11.0 \%$ |
| Two Pair | $37.6 \%$ |
| One Pair | $20.9 \%$ |
| High Card | $1.2 \%$ |
| Total | $100.0 \%$ |
| Low Hands |  |
| Five Low | Frequency |
| Six Low | $\mathrm{N} / \mathrm{A}$ |
| Seven Low | $7.5 \%$ |
| Eight Low | $13.2 \%$ |
| Nine Low | $18.3 \%$ |
| Ten Low | $20.0 \%$ |
| Other | $18.5 \%$ |
| Total | $100.0 \%$ |



The Rick High Hands 5 players

| Rank | Percent |  | The Rick High Hands 5 players |
| :---: | :---: | :---: | :---: |
| Five of a Kind | 0.0 |  |  |
| Straight Flush | 0.5 | 30 |  |
| Quads | 3.2 |  |  |
| Full House | 28.6 | + 20 |  |
| Flush | 20.1 |  |  |
| Straight | 26.2 | a |  |
| Trips | 11.8 | 10 |  |
| Two Pair | 9.4 |  |  |
| One Pair | 0.2 |  |  |
| High Card | 0.0 |  | $\alpha_{1} \hat{y} \text { 人 }$ |
| Total | 100.0 |  |  |

The Rick Low Hands 5 players
The Rick Low Hands 5 players


## Notes on some poker variations

## The Ricky

Deal five cards to each player, then one row of four cards and two rows of two cards face down. Use two cards from your hand, two cards from the four-card row, and one card from either of the two-card rows - but not both. There are 240 possible card combinations for the player's hand.

The median high hand was a nine-high straight. There is about a $20 \%$ chance of getting a full house or better and about a $35 \%$ chance of getting a flush or better. There is over a $60 \%$ chance of a full house or better if there are five players (next page).

Regarding low hands, the median low hand was an eight-six low. There is about a $5 \%$ chance of a five low and a $20 \%$ chance of a six low or better. There is almost a $50 \%$ chance of a six-low or better with five players (next page).

| The Ricky |  |
| ---: | ---: |
|  |  |
| High Hands | Frequency |
| Straight Flush | $0.4 \%$ |
| Quads | $1.6 \%$ |
| Full House | $19.1 \%$ |
| Flush | $15.8 \%$ |
| Straight | $24.2 \%$ |
| Trips | $10.2 \%$ |
| Two Pair | $25.4 \%$ |
| One Pair | $3.4 \%$ |
| High Card | $0.0 \%$ |
| Total | $100.0 \%$ |
|  |  |
| Low Hands | Frequency |
| Five Low | $5.4 \%$ |
| Six Low | $14.1 \%$ |
| Seven Low | $20.5 \%$ |
| Eight Low | $21.7 \%$ |
| Nine Low | $17.9 \%$ |
| Ten Low | $11.7 \%$ |
| Other | $8.7 \%$ |
| Total | $100.0 \%$ |



The Ricky Low Hands One Player


TheRicky High Hands 5 players

| Rank | Percent |
| :--- | ---: |
| Five of a Kind | 0.0 |
| Straight Flush | 1.7 |
| Quads | 8.0 |
| Full House | 55.2 |
| Flush | 20.0 |
| Straight | 13.1 |
| Trips | 1.5 |
| Two Pair | 0.5 |
| One Pair | 0.0 |
| High Card | 0.0 |
| Total | 100.0 |



## TheRicky Low Hands 5 players

TheRicky Low Hands5 players

| Rank | Percent |
| :--- | ---: |
| Five-Low | 20.4 |
| Six-Low | 26.0 |
| Seven-Low | 18.3 |
| Eight-Low | 13.4 |
| Nine-Low | 9.9 |
| Ten-Low | 6.7 |
| Worse | 5.4 |
| Total | 100.0 |



## The Harvey

Deal five cards to each player and two rows of five cards face down. Make your best hand using two cards from your hand, along with three cards from one of the rows. The wheel is the best low. There are 200 possible card combinations for the player's hand.

The median high hand was a nine-high straight. There is a $20 \%$ chance of getting a full house or better and over a $35 \%$ chance of getting a flush or better. There is over a $60 \%$ chance of a full house or better with five players (next page).

Regarding low hands, the median low hand was an eight-six low. There is a $20 \%$ chance of getting a six low or better and over a $40 \%$ chance of getting a seven low or better.
There is almost a $20 \%$ chance of a five-low with five players (next page).

| The Harvey |  |
| ---: | ---: |
|  |  |
| High Hands | Frequency |
| Straight Flush | $0.3 \%$ |
| Quads | $1.4 \%$ |
| Full House | $18.3 \%$ |
| Flush | $16.3 \%$ |
| Straight | $21.9 \%$ |
| Trips | $11.7 \%$ |
| Two Pair | $27.1 \%$ |
| One Pair | $2.9 \%$ |
| High Card | $0.0 \%$ |
| Total | $100.0 \%$ |
|  |  |
| Low Hands | Frequency |
| Five Low | $4.9 \%$ |
| Six Low | $14.5 \%$ |
| Seven Low | $22.8 \%$ |
| Eight Low | $24.5 \%$ |
| Nine Low | $18.5 \%$ |
| Ten Low | $10.3 \%$ |
| Other | $4.5 \%$ |
| Total | $100.0 \%$ |



The Harvey Low Hand Distribution


The Harvey High Hands 5 players

| Rank | Percent |
| :--- | ---: |
| Five of a Kind | 0.0 |
| Straight Flush | 1.5 |
| Quads | 6.9 |
| Full House | 50.5 |
| Flush | 23.0 |
| Straight | 15.8 |
| Trips | 2.0 |
| Two Pair | 0.4 |
| One Pair | 0.0 |
| High Card | 0.0 |
| Total | 100.0 |

The Harvey High Hands 5 players


The Harvey Low Hands 5 players
The Harvey Low Hands 5 players

| Rank | Percent |
| :--- | ---: |
| Five-Low | 18.7 |
| Six-Low | 29.7 |
| Seven-Low | 22.2 |
| Eight-Low | 14.7 |
| Nine-Low | 8.7 |
| Ten-Low | 4.2 |
| Worse | 1.6 |
| Total | 100.0 |



## Tic Tac Toe

Deal five cards to each player and then nine cards in a square grid plus a tenth card on the side as a spit card. Make your best hand using up to three cards from your hand and cards from the grid vertically, horizontally, or diagonally, plus the spit card. Typically, the wheel is the best low. There are 690 possible combinations for the player's hand.

The median high hand was an ace-jack flush. There is a $40 \%$ chance of having a full house or better and almost a $70 \%$ chance of a flush or better. There is better than a $90 \%$ chance of a full house or better with five players (next page).

Regarding low hands, the median low hand was a seven-six low. There is about a $10 \%$ chance of getting a five low and better than a $30 \%$ chance of getting a six low or better. There is over an $80 \%$ chance of a six-low or better with five players (next page).

| Tic Tac Toe |  |
| ---: | ---: |
|  |  |
| High Hands | Frequency |
| Straight Flush | $1.0 \%$ |
| Quads | $2.8 \%$ |
| Full House | $37.1 \%$ |
| Flush | $26.5 \%$ |
| Straight | $20.2 \%$ |
| Trips | $2.4 \%$ |
| Two Pair | $9.9 \%$ |
| One Pair | $0.2 \%$ |
| High Card | $0.0 \%$ |
| Total | $100.0 \%$ |
| Low Hands | Frequency |
| Five Low | $10.3 \%$ |
| Six Low | $22.4 \%$ |
| Seven Low | $26.4 \%$ |
| Eight Low | $21.6 \%$ |
| Nine Low | $12.6 \%$ |
| Ten Low | $5.2 \%$ |
| Other | $1.5 \%$ |
| Total | $100.0 \%$ |




Tic-Tac-Toe High Hands 5 players

| Rank | Percent |  | Tic-Tac-Toe High Hands 5 players |
| :---: | :---: | :---: | :---: |
| Five of a Kind | 0.0 |  |  |
| Straight Flush | 4.5 |  |  |
| Quads | 13.2 | 60 |  |
| Full House | 74.4 |  |  |
| Flush | 7.3 | ¢ 40 |  |
| Straight | 0.6 |  |  |
| Trips | 0.0 | 20 |  |
| Two Pair | 0.0 |  |  |
| One Pair | 0.0 |  | ■ |
| High Card | 0.0 |  |  |
| Total | 100.0 |  |  |

Tic-Tac-Toe Low Hands 5 players
Tic-Tac-Toe Low Hands 5 players

| Rank | Percent |
| :--- | ---: |
| Five-Low | 39.4 |
| Six-Low | 41.5 |
| Seven-Low | 15.8 |
| Eight-Low | 2.8 |
| Nine-Low | 0.4 |
| Ten-Low | 0.1 |
| Worse | 0.0 |
| Total | 100.0 |



## Notes on some poker variations

## Pyramid

Deal five cards to each player and then fifteen cards in rows of $5,4,3,2,1$. Make your best hand using up to three cards from your hand and no more than one card from each row. Typically, the wheel A2345 is the best low. There are 970 possible combinations for the player's hand.

The median high hand was an ace-king flush. There is a $5 \%$ chance of having quads or better and almost a $50 \%$ chance of a full house or better. There is about a $95 \%$ chance of a full house or better with five players (next page).

Regarding low hands, the median low hand was a seven-six low. There is about a $12 \%$ chance of getting a five low, about a $35 \%$ chance of getting a six low or better, and a $65 \%$ chance of getting a seven low or better. There is almost an $85 \%$ chance of a 6 -low or better with five players (next page).

| Pyramid |  |
| ---: | ---: |
|  |  |
| High Hands | Frequency |
| Straight Flush | $1.4 \%$ |
| Quads | $3.4 \%$ |
| Full House | $43.1 \%$ |
| Flush | $27.5 \%$ |
| Straight | $17.1 \%$ |
| Trips | $1.0 \%$ |
| Two Pair | $6.4 \%$ |
| One Pair | $0.1 \%$ |
| High Card | $0.0 \%$ |
| Total | $100.0 \%$ |
|  |  |
| Low Hands | Frequency |
| Five Low | $12.8 \%$ |
| Six Low | $24.8 \%$ |
| Seven Low | $26.3 \%$ |
| Eight Low | $19.7 \%$ |
| Nine Low | $10.6 \%$ |
| Ten Low | $4.3 \%$ |
| Other | $1.5 \%$ |
| Total | $100.0 \%$ |




## Pyramid High Hands 5 players

| Rank | Percent |
| :--- | ---: |
| Five of a Kind | 0.0 |
| Straight Flush | 6.3 |
| Quads | 15.1 |
| Full House | 73.5 |
| Flush | 4.8 |
| Straight | 0.2 |
| Trips | 0.0 |
| Two Pair | 0.0 |
| One Pair | 0.0 |
| High Card | 0.0 |
| Total | 100.0 |

Pyramid Low Hands 5 players

| Rank | Percent |
| :--- | ---: |
| Five-Low | 44.5 |
| Six-Low | 39.4 |
| Seven-Low | 13.4 |
| Eight-Low | 2.4 |
| Nine-Low | 0.3 |
| Ten-Low | 0.0 |
| Worse | 0.0 |
| Total | 100.0 |



## Notes on some poker variations

## Bundles

Deal five cards to each player, then three rows of two cards and two rows of three cards, all face down. Make your best hand using three cards in your hand together with a twocard row and two cards in your hand combined with a three-card row. There are 50 possible combinations for the player's hand.

The median high hand was two pair aces over tens. There is about a $13 \%$ chance of getting a flush or better and a $25 \%$ chance of getting a straight or better. There is almost a $30 \%$ chance of a full house or better with five players (next page).

Regarding low hands, the median low hand was a nine-seven low. There is about a $20 \%$ chance of getting a seven low or better and about a $40 \%$ chance of getting an eight low or better. There is about a $25 \%$ chance of a six-low with five players (next page).

| Bundles |  |
| ---: | ---: |
|  |  |
| High Hands | Frequency |
| Straight Flush | $0.1 \%$ |
| Quads | $0.8 \%$ |
| Full House | $6.0 \%$ |
| Flush | $6.5 \%$ |
| Straight | $11.9 \%$ |
| Trips | $22.1 \%$ |
| Two Pair | $37.0 \%$ |
| One Pair | $15.4 \%$ |
| High Card | $0.1 \%$ |
| Total | $100.0 \%$ |
| Low Hands | Frequency |
| Five Low | $\mathrm{N} / \mathrm{A}$ |
| Six Low | $6.7 \%$ |
| Seven Low | $13.6 \%$ |
| Eight Low | $20.1 \%$ |
| Nine Low | $23.2 \%$ |
| Ten Low | $19.5 \%$ |
| Other | $16.8 \%$ |
| Total | $100.0 \%$ |



## Bundles High Hands 5 players



Bundles Low Hands 5 players
Bundles Low Hands 5 players

| Rank | Percent |
| :--- | ---: |
| Five-Low | 0.0 |
| Six-Low | 25.3 |
| Seven-Low | 30.2 |
| Eight-Low | 22.8 |
| Nine-Low | 12.6 |
| Ten-Low | 6.0 |
| Worse | 3.1 |
| Total | 100.0 |



## Notes on some poker variations

## Triple Harvey

Deal five cards to each player and three rows of five cards face down. Make your best hand using two cards from your hand, along with three cards from one of the rows. The wheel is the best low. There are 300 possible combinations for the player's hand.

The median high hand was a queen high flush. There is almost a $30 \%$ chance of a full house or better and better than an $80 \%$ chance of a flush or better. There is over a $10 \%$ chance of quads or better with five players (next page).

Regarding low hands, the median low hand was a seven low. There is almost a $30 \%$ chance of getting a six low or better and almost a $55 \%$ chance of getting a seven low or better. There is almost a $30 \%$ chance of five-low with five players (next page).

| Triple Harvey |  |
| ---: | ---: |
|  |  |
| High Hands | Frequency |
| Straight Flush | $0.5 \%$ |
| Quads | $2.2 \%$ |
| Full House | $26.0 \%$ |
| Flush | $20.7 \%$ |
| Straight | $23.9 \%$ |
| Trips | $10.7 \%$ |
| Two Pair | $15.6 \%$ |
| One Pair | $0.5 \%$ |
| High Card | $0.0 \%$ |
| Total | $100.0 \%$ |
|  |  |
| Low Hands | Frequency |
| Five Low | $7.1 \%$ |
| Six Low | $20.0 \%$ |
| Seven Low | $28.0 \%$ |
| Eight Low | $24.0 \%$ |
| Nine Low | $13.6 \%$ |
| Ten Low | $5.5 \%$ |
| Other | $1.9 \%$ |
| Total | $100.0 \%$ |



Triple Harvey High Hands 5 players


Triple Harvey Low Hands 5 players
Triple Harvey Low Hands 5 players

| Rank | Percent |
| :--- | ---: |
| Five-Low | 27.3 |
| Six-Low | 37.2 |
| Seven-Low | 20.9 |
| Eight-Low | 9.9 |
| Nine-Low | 3.7 |
| Ten-Low | 1.0 |
| Worse | 0.1 |
| Total | 100.0 |



## Notes on some poker variations

## Wild Card Triple Harvey

Deal five cards to each player and three rows of five cards face down, plus an additional card that indicates which rank is wild. Note that the card indicating the wild rank cannot be used to make a hand, so a total of three wild cards are available. Make your best hand using two cards from your hand, along with three cards from one of the rows. The wheel is the best low. There are 300 possible combinations for the player's hand.

The median high hand in the simulation was queens full over sevens. A straight flush or better will occur about $10 \%$ of the time, and quads or better almost $40 \%$ of the time. There is over a $30 \%$ chance of a straight flush or better with five players (next page).

Regarding low hands, the median low hand was a 7432A. There is better than a $20 \%$ chance of getting a five low and a $45 \%$ chance of getting a six low or better. There is over a $50 \%$ chance of a five-low with five players (next page).

| Wild Triple Harvey |  |
| ---: | ---: |
|  |  |
| High Hands | Frequency |
| Five of a Kind | $2.2 \%$ |
| Straight Flush | $7.6 \%$ |
| Quads | $28.1 \%$ |
| Full House | $32.7 \%$ |
| Flush | $12.9 \%$ |
| Straight | $11.1 \%$ |
| Trips | $2.7 \%$ |
| Two Pair | $2.7 \%$ |
| One Pair | $0.0 \%$ |
| Total | $100.0 \%$ |
|  |  |
| Low Hands | Frequency |
| Five Low | $23.1 \%$ |
| Six Low | $22.8 \%$ |
| Seven Low | $23.0 \%$ |
| Eight Low | $16.8 \%$ |
| Nine Low | $9.1 \%$ |
| Ten Low | $3.7 \%$ |
| Other | $1.5 \%$ |
| Total | $100.0 \%$ |
| 16 |  |



# Notes on some poker variations 

Triple Harvey Wild Card High Hands 5 players


Triple Harvey Wild Card Low Hands 5 players
Triple Harvey Wild Card Low Hands 5 players

| Rank | Percent |
| :--- | ---: |
| Five-Low | 53.5 |
| Six-Low | 22.8 |
| Seven-Low | 13.7 |
| Eight-Low | 6.4 |
| Nine-Low | 2.7 |
| Ten-Low | 0.7 |
| Worse | 0.1 |
| Total | 100.0 |



## Notes on some poker variations

## Harvey Two Four

Deal five cards to each player and three rows of five cards face down. Make your best hand using exactly two or four cards from your hand, along with three cards or one card from one of the three rows. The wheel is the best low. There are 375 possible combinations for the player's hand, not much more than the 300 in the Triple Harvey.

The median high hand was a queen high flush. There is over a $30 \%$ chance of a full house or better and a $55 \%$ chance of a flush or better. There is over a $15 \%$ chance of quads or better with five players (next page).

Regarding low hands, the median low hand is between a six and seven low. There is about a $30 \%$ chance of getting a six low or better and about a $60 \%$ chance of getting a seven low or better. There is over a $30 \%$ chance of a five-low with five players (next page).

| Harvey Two Four |  |
| ---: | ---: |
|  |  |
| High Hands | Frequency |
| Straight Flush | $0.5 \%$ |
| Quads | $2.8 \%$ |
| Full House | $28.9 \%$ |
| Flush | $22.2 \%$ |
| Straight | $24.1 \%$ |
| Trips | $8.4 \%$ |
| Two Pair | $13.0 \%$ |
| One Pair | $0.1 \%$ |
| High Card | $0.0 \%$ |
| Total | $100.0 \%$ |
|  |  |
| Low Hands | Frequency |
| Five Low | $8.1 \%$ |
| Six Low | $21.4 \%$ |
| Seven Low | $28.0 \%$ |
| Eight Low | $23.1 \%$ |
| Nine Low | $12.9 \%$ |
| Ten Low | $4.8 \%$ |
| Other | $1.7 \%$ |
| Total | $100.0 \%$ |



## Harvey Use Two or Four High Hands 5 players



Harvey Use Two or Four Low Hands 5 players
Harvey Use Two or Four Low Hands 5 players

| Rank | Percent |
| :--- | ---: |
| Five-Low | 31.8 |
| Six-Low | 41.7 |
| Seven-Low | 20.1 |
| Eight-Low | 5.6 |
| Nine-Low | 0.8 |
| Ten-Low | 0.0 |
| Worse | 0.0 |
| Total | 100.0 |



## Three Card Triple Harvey

Deal five cards to each player and three rows of five cards face down. Make your best hand using exactly three cards from your hand, along with two cards from one of the three rows. The wheel is the best low. There are 300 possible combinations for the player's hand.

The median high hand was a king-high straight. There is a $25 \%$ chance of a full house or better and a $45 \%$ chance of a flush or better. There is over a $12 \%$ chance of quads or better with five players (next page).

Regarding low hands, the median low hand was an eight-six low. There is about a $20 \%$ chance of getting a six low or better and about a $40 \%$ chance of getting a seven low or better. There is over a $30 \%$ chance of a five-low with five players (next page).

| Three Card Harvey |  |
| ---: | ---: |
|  |  |
| High Hands | Frequency |
| Straight Flush | $0.4 \%$ |
| Quads | $2.2 \%$ |
| Full House | $23.0 \%$ |
| Flush | $18.9 \%$ |
| Straight | $25.7 \%$ |
| Trips | $11.2 \%$ |
| Two Pair | $17.7 \%$ |
| One Pair | $1.0 \%$ |
| High Card | $0.0 \%$ |
| Total | $100.0 \%$ |
|  |  |
| Low Hands |  |
| Five Low | $6.6 \%$ |
| Six Low | $15.6 \%$ |
| Seven Low | $19.1 \%$ |
| Eight Low | $17.9 \%$ |
| Nine Low | $14.9 \%$ |
| Ten Low | $11.6 \%$ |
| Other | $14.4 \%$ |
| Total | $100.0 \%$ |



## Three Card Triple Harvey High Hands 5 players

| Rank | Percent |
| :--- | ---: |
| Five of a Kind | 0.0 |
| Straight Flush | 2.2 |
| Quads | 10.2 |
| Full House | 64.1 |
| Flush | 17.7 |
| Straight | 5.5 |
| Trips | 0.2 |
| Two Pair | 0.0 |
| One Pair | 0.0 |
| High Card | 0.0 |
| Total | 100.0 |

Three Card Triple Harvey High Hands 5 players


## Three Card Triple Harvey Low Hands 5 players

Three Card Triple Harvey Low Hands 5 players

| Rank | Percent |
| :--- | ---: |
| Five-Low | 29.6 |
| Six-Low | 44.9 |
| Seven-Low | 21.0 |
| Eight-Low | 4.0 |
| Nine-Low | 0.4 |
| Ten-Low | 0.0 |
| Worse | 0.0 |
| Total | 100.0 |



## Notes on some poker variations

## The Neal

This is a variation of the Triple Harvey, where significantly more hands are possible. Each player receives five cards, and then three rows of five cards are dealt. Make your best hand using two cards from your hand and any of the following cards from rows one, two, and three, respectfully: $(3,0,0),(0,3,0),(0,0,3),(1,1,1),(2,1,0),(1,2,0),(0,2,1),(0,1,2)$. There are 3,550 possible combinations for the player's hand. The Neal can be played with or without the wheel (A2345) as the best low hand. The analysis that follows assumes the wheel plays as low.

The median high hand was tens full over jacks. There is a better than $15 \%$ chance of having quads or better. Quads or better occurs over $60 \%$ of the time with five players (next page).

The median low hand was A2456. There is almost a $30 \%$ chance of having a five-low wheel and over a $60 \%$ chance of having a six-low or better. A five-low occurs over $75 \%$ of the time with five players (next page).

| The Neal |  |
| ---: | ---: |
|  |  |
| High Hands | Frequency |
| Straight Flush | $4.6 \%$ |
| Quads | $12.6 \%$ |
| Full House | $66.1 \%$ |
| Flush | $13.1 \%$ |
| Straight | $3.4 \%$ |
| Trips | $0.1 \%$ |
| Two Pair | $0.1 \%$ |
| One Pair | $0.0 \%$ |
| High Card | $0.0 \%$ |
| Total | $100.0 \%$ |
|  |  |
| Low Hands |  |
| Five Low | $29.2 \%$ |
| Six Low | $31.6 \%$ |
| Seven Low | $19.8 \%$ |
| Eight Low | $10.2 \%$ |
| Nine Low | $5.2 \%$ |
| Ten Low | $2.6 \%$ |
| Other | $1.4 \%$ |
| 22 Total | $100.0 \%$ |



The Neal High Hands 5 players


The Neal Low Hands 5 players
The Neal Low Hands 5 players

| Rank | Percent |
| :--- | ---: |
| Five-Low | 77.7 |
| Six-Low | 19.2 |
| Seven-Low | 2.6 |
| Eight-Low | 0.4 |
| Nine-Low | 0.1 |
| Ten-Low | 0.0 |
| Worse | 0.0 |
| Total | 100.0 |



## Notes on some poker variations

## Omaha

Deal five cards to each player and a row of five cards face down. Make your best hand with two cards from your hand and three cards from the table. There are 100 possible combinations for the player's hand.

The median high hand was two pair aces over sevens. There is a $10 \%$ chance of a full house or better, a $20 \%$ chance of a flush or better, and a $35 \%$ chance of a straight or better. A full house or better occurs over $35 \%$ of the time with five players (next page).

Regarding low hands, the median low hand was a nine-seven low. There is better than a $20 \%$ chance of getting a seven low or better and better than a $40 \%$ chance of getting an eight low or better. A six-low occurs over $25 \%$ of the time with five players (next page).

| Omaha |  |
| ---: | ---: |
|  |  |
| High Hands | Frequency |
| Straight Flush | $0.2 \%$ |
| Quads | $0.7 \%$ |
| Full House | $9.6 \%$ |
| Flush | $9.7 \%$ |
| Straight | $15.3 \%$ |
| Trips | $9.6 \%$ |
| Two Pair | $37.6 \%$ |
| One Pair | $16.7 \%$ |
| High Card | $0.8 \%$ |
| Total | $100.0 \%$ |
|  |  |
| Low Hands | Frequency |
| Five Low | $\mathrm{N} / \mathrm{A}$ |
| Six Low | $8.8 \%$ |
| Seven Low | $14.6 \%$ |
| Eight Low | $19.1 \%$ |
| Nine Low | $20.1 \%$ |
| Ten Low | $17.3 \%$ |
| Other | $20.1 \%$ |
| Total | $100.0 \%$ |



Omaha High Hands 5 players

| Rank | Percent |
| :--- | ---: |
| Five of a Kind | 0.0 |
| Straight Flush | 0.7 |
| Quads | 3.6 |
| Full House | 31.8 |
| Flush | 21.7 |
| Straight | 26.9 |
| Trips | 8.8 |
| Two Pair | 6.5 |
| One Pair | 0.0 |
| High Card | 0.0 |
| Total | 100.0 |

Omaha High Hands 5 players


Omaha Low Hands 5 players

| Rank | Percent |
| :--- | ---: |
| Five-Low | 0.0 |
| Six-Low | 25.5 |
| Seven-Low | 18.8 |
| Eight-Low | 15.9 |
| Nine-Low | 14.0 |
| Ten-Low | 11.4 |
| Worse | 14.4 |
| Total | 100.0 |



## Notes on some poker variations

## Three-Card Pyramid

Deal three cards to each player and then ten cards in rows of $4,3,2$, and 1 . Make your best hand using up to three cards from your hand and no more than one card from each row. There are 257 possible combinations for the player's hand.

The median high hand was a nine-high straight. There is a $20 \%$ chance of a full house or better, almost a $40 \%$ chance of a flush or better, and a $60 \%$ chance of a straight or better. A full house or better occurs over $60 \%$ of the time with five players (next page).

Regarding low hands, the median low hand was an eight-seven low. There is about a $15 \%$ chance of a six low, and better than a $35 \%$ chance of a seven low or better, and about a $60 \%$ chance of an eight low or better. A six-low occurs almost half the time with five players (next page).

| Three Card Pyramid |  |
| ---: | ---: |
|  |  |
| High Hands | Frequency |
| Straight Flush | $0.4 \%$ |
| Quads | $1.4 \%$ |
| Full House | $19.2 \%$ |
| Flush | $16.8 \%$ |
| Straight | $22.2 \%$ |
| Trips | $7.8 \%$ |
| Two Pair | $26.9 \%$ |
| One Pair | $5.3 \%$ |
| High Card | $0.1 \%$ |
| Total | $100.0 \%$ |
|  |  |
| Low Hands | Frequency |
| Five Low | $\mathrm{N} / \mathrm{A}$ |
| Six Low | $15.8 \%$ |
| Seven Low | $20.7 \%$ |
| Eight Low | $21.7 \%$ |
| Nine Low | $18.4 \%$ |
| Ten Low | $12.8 \%$ |
| Other | $10.6 \%$ |
| Total | $100.0 \%$ |



Three Card Pyramid High Hands 5 players

| Rank | Percent |
| :--- | ---: |
| Five of a Kind | 0.0 |
| Straight Flush | 1.8 |
| Quads | 6.3 |
| Full House | 55.8 |
| Flush | 22.3 |
| Straight | 11.6 |
| Trips | 1.1 |
| Two Pair | 1.0 |
| One Pair | 0.0 |
| High Card | 0.0 |
| Total | 100.0 |

Three Card Pyramid High Hands 5 players


Three Card Pyramid Low Hands 5 players
Three Card Pyramid Low Hands 5 players

| Rank | Percent |
| :--- | ---: |
| Five-Low | 0.0 |
| Six-Low | 48.1 |
| Seven-Low | 30.9 |
| Eight-Low | 15.0 |
| Nine-Low | 4.7 |
| Ten-Low | 1.0 |
| Worse | 0.1 |
| Total | 100.0 |



## Notes on some poker variations

## Baseball

The game is dealt like seven-card stud with a spit, but threes and nines are wild, and a player receiving a four as an up-card receives an additional up-card. Depending upon the number of fours one receives, there are as few as 56 and as many as 792 possible combinations for the player's hand. The chance of not having a wild card is about 20 percent.

The median high hand was an ace-high flush. There is a $15 \%$ chance of a straight flush or better and a $35 \%$ chance of quads or better.

Regarding low hands, the median low hand was an eight-seven low. There is about a $13 \%$ chance of a five low and a $25 \%$ chance of a six low or better.

| Baseball |  |
| ---: | ---: |
|  |  |
| High Hands | Frequency |
| Five of a Kind | $8.0 \%$ |
| Straight Flush | $7.8 \%$ |
| Quads | $19.5 \%$ |
| Full House | $14.6 \%$ |
| Flush | $9.8 \%$ |
| Straight | $13.4 \%$ |
| Trips | $8.8 \%$ |
| Two Pair | $10.2 \%$ |
| One Pair | $7.0 \%$ |
| No Pair | $0.9 \%$ |
| Total | $100.0 \%$ |
| Low Hands | Frequency |
| Five Low | $12.6 \%$ |
| Six Low | $12.0 \%$ |
| Seven Low | $15.9 \%$ |
| Eight Low | $17.6 \%$ |
| Nine Low | $0.0 \%$ |
| Ten Low | $16.5 \%$ |
| Other | $25.5 \%$ |
| Total | $100.0 \%$ |




## Pick Your Own Wild Card for High Hand Only

Each player receives seven cards and shares a common eighth card (the "spit"). Make your best hand using any five of the eight cards. The player may choose any rank card as wild to form a high hand. There are 56 possible combinations for the player's hand.

The median high hand was four nines. There is about a $6 \%$ chance of five of a kind and over a $30 \%$ chance of a straight flush or better. Note that a full house and two pairs are never optimal choices. Five-of-a-kind occurs almost $30 \%$ of the time, and a straight flush almost $60 \%$ of the time with five players (next page).

Regarding low hands, assuming the wheel does not play, the median low hand is between nine and ten low. There is about a $4 \%$ chance of a six low, a $14 \%$ chance of a seven low or better, and about a $30 \%$ chance of an eight low or better.

| Pick Own Wild Card High |  |
| ---: | ---: |
|  |  |
| High Hands | Frequency |
| Five of a Kind | $6.4 \%$ |
| Straight Flush | $24.5 \%$ |
| Quads | $27.3 \%$ |
| Full House | $0.0 \%$ |
| Flush | $21.7 \%$ |
| Straight | $19.9 \%$ |
| Trips | $0.0 \%$ |
| Two Pair | $0.0 \%$ |
| One Pair | $0.1 \%$ |
| Total | $100.0 \%$ |
|  |  |
| Low Hands | Frequency |
| Five Low | $\mathrm{N} / \mathrm{A}$ |
| Six Low | $4.1 \%$ |
| Seven Low | $9.7 \%$ |
| Eight Low | $15.4 \%$ |
| Nine Low | $19.1 \%$ |
| Ten Low | $16.5 \%$ |
| Other | $35.2 \%$ |
| Total | $100.0 \%$ |




## Notes on some poker variations

## PickWildCardHighOnly High Hands 5 players



PickWildCardHighOnly Low Hands 5 players
PickOwnWildCardHighOnly Low Hands5 players

| Rank | Percent |
| :--- | ---: |
| Five-Low | 0.0 |
| Six-Low | 19.1 |
| Seven-Low | 34.2 |
| Eight-Low | 29.5 |
| Nine-Low | 13.5 |
| Ten-Low | 3.3 |
| Worse | 0.4 |
| Total | 100.0 |



## Notes on some poker variations

## Seven Twenty-Seven

This game actually has more in common with Blackjack than Poker. The goal is to create a hand with a point value as close as possible to 7 (to win low) or 27 (to win high). Picture cards (Jacks, Kings, and Queens) are worth $1 / 2$ point each, Aces are worth 1 or 11 points at the player's discretion, and all other cards are worth their rank.

Each player initially receives three cards, two down and one up. There is a round of betting, and then the dealer asks each player in turn if they wish another card. If any player takes a card, which is dealt to them face up, then there is another round of betting after every player is asked. A player may elect to take or not take a card in any round.

Play ceases when no player takes a card, at which time hands are exposed and compared in a showdown. The player whose hand total is closest to 7 wins low, and the player closest to 27 wins high. If hands equally differ from 7 or 27 , under beats over (for example, 6.5 beats 7.5). The pot is then split evenly between the best high and best low (any odd chip goes to the high-hand winner). Further splits can occur when there are tied winning hands (multiple high or low winners). Of course, a player can win both high and low with a hand like Ace, Ace, and Five, totaling 7 and 27. Since suits do not matter and all face cards are equivalent, there are 286 possible three-card hands after the deal.

Betting can be aggressive in this game, particularly when one player has a lock on the best low hand and will bet or raise every round. It is also not uncommon for players to bluff a better low than they have if their cards allow it.

Regarding hand distribution, about $3 \%$ of the time, a player will be dealt 7 or 27 , and about $7.5 \%$ of the time, a hand no more than $1 / 2$ point away from 7 or 27 . If play continues for two rounds, there is a $15 \%$ chance one of five players has a perfect score and over a $40 \%$ chance someone has a hand no more than $1 / 2$ point away from 7 or 27 .

The table below lists the number of hands totaling 7 or 27 for a given number of cards.

| Number <br> of Cards | Number <br> of Hands | Hands Worth 7 <br> Number |  | Hands Worth 27 |  |
| ---: | ---: | ---: | ---: | ---: | ---: |
| $\mathbf{3}$ | 22,100 | 400 | $1.8 \%$ | 244 | $1.1 \%$ |
| 4 | 270,725 | 2,636 | $1.0 \%$ | 6,992 | $2.6 \%$ |
| 5 | $2,598,960$ | 8,080 | $0.3 \%$ | 72,196 | $2.8 \%$ |
| 6 | $20,358,520$ | 19,272 | $0.1 \%$ | 660,056 | $3.2 \%$ |
| Total | $\mathbf{2 3 , 2 5 0 , 3 0 5}$ | $\mathbf{3 0 , 3 8 8}$ | $\mathbf{0 . 1 \%}$ | $\mathbf{7 3 9 , 4 8 8}$ | $\mathbf{3 . 2 \%}$ |

## Notes on some poker variations

## Two-Eyed Face Cards Wild

This game is played like seven-card stud with a spit, except the eight 2 -eyed picture cards in the deck are wild (namely the Jack, Queen, King of Clubs, Jack of Diamonds, Queen and King of Hearts, and Queen and King of Spades). Choosing five of the seven cards dealt plus the spit card, there are 56 possible combinations for the player's hand.

With so many wild cards, very strong hands are not uncommon. While the median high hand in a normal seven-card stud game is two-pair, the median high hand in this game was an Ace-high flush. There is over a $30 \%$ chance of having quads or higher. A straight flush or better occurs over $60 \%$ of the time with five players (next page).

Regarding low hands, the median low hand was 7632A. There is almost a $25 \%$ chance of a five-low and over a $40 \%$ chance of a six-low or better. A five-low occurs over $75 \%$ of the time with five players (next page)

| Two Eyed Picture Cards Wild |  |
| ---: | ---: |
|  |  |
| High Hands | Frequency |
| Five of a Kind | $6.3 \%$ |
| Straight Flush | $10.8 \%$ |
| Quads | $17.4 \%$ |
| Full House | $12.5 \%$ |
| Flush | $10.5 \%$ |
| Straight | $18.8 \%$ |
| Trips | $7.1 \%$ |
| Two Pair | $8.5 \%$ |
| One Pair | $6.9 \%$ |
| No Pair | $1.2 \%$ |
| Total | $100.0 \%$ |
| Low Hands | Frequency |
| Five Low | $24.4 \%$ |
| Six Low | $15.8 \%$ |
| Seven Low | $17.9 \%$ |
| Eight Low | $17.0 \%$ |
| Nine Low | $13.3 \%$ |
| Ten Low | $7.9 \%$ |
| Other | $3.6 \%$ |
| 32 Total | $100.0 \%$ |



2-eyed Face Cards Wild High Hands 5 players

| Rank | Percent |
| :--- | ---: |
| Five of a Kind | 28.8 |
| Straight Flush | 33.9 |
| Quads | 28.2 |
| Full House | 6.3 |
| Flush | 2.1 |
| Straight | 0.7 |
| Trips | 0.0 |
| Two Pair | 0.0 |
| One Pair | 0.0 |
| High Card | 0.0 |
| Total | 100.0 |

2-eyed Face Cards Wild High Hands 5 players


## 2-eyed Face Cards Wild Low Hands 5 players

2-eyed Face Cards Wild Low Hands 5 players

| Rank | Percent |
| :--- | ---: |
| Five-Low | 76.2 |
| Six-Low | 16.8 |
| Seven-Low | 5.9 |
| Eight-Low | 1.0 |
| Nine-Low | 0.1 |
| Ten-Low | 0.0 |
| Worse | 0.0 |
| Total | 100.0 |



## Notes on some poker variations

## Two Three All

Deal five cards to each player, then a row of five cards. Make your best five-card hand using two, three, or all five cards in your hand together with the complementary number of cards from the table. There are 201 possible combinations for the player's hand.

The median high hand was a six-high straight. There is over a $15 \%$ chance of a full house or better and almost a $35 \%$ chance of a flush or better. A full house or better occurs over $60 \%$ of the time with five players (next page).

Regarding low hands, assuming the wheel plays, the median low hand was an eight-seven low. There is about a $15 \%$ chance of a six low or better. A five-low occurred over $15 \%$ of the time, and a six-low or better occurred almost half the time with five players (next page).

| Two Three All |  |
| ---: | ---: |
|  |  |
| High Hands | Frequency |
| Straight Flush | $0.3 \%$ |
| Quads | $1.0 \%$ |
| Full House | $16.3 \%$ |
| Flush | $16.3 \%$ |
| Straight | $17.9 \%$ |
| Trips | $4.4 \%$ |
| Two Pair | $36.8 \%$ |
| One Pair | $6.6 \%$ |
| High Card | $0.4 \%$ |
| Total | $100.0 \%$ |
|  |  |
| Low Hands | Frequency |
| Five Low | $3.8 \%$ |
| Six Low | $11.1 \%$ |
| Seven Low | $18.2 \%$ |
| Eight Low | $22.0 \%$ |
| Nine Low | $20.2 \%$ |
| Ten Low | $14.1 \%$ |
| Other | $10.7 \%$ |
| Total | $100.0 \%$ |



## TwoThreeAll High Hands 5 Players

| Rank | Percent |
| :--- | ---: |
| Five of a Kind | 0.0 |
| Straight Flush | 1.4 |
| Quads | 4.7 |
| Full House | 53.8 |
| Flush | 26.3 |
| Straight | 10.9 |
| Trips | 1.1 |
| Two Pair | 1.7 |
| One Pair | 0.0 |
| High Card | 0.0 |
| Total | 100.0 |



## TwoThreeAll Low Hands 5 Players

TwoThreeAll Low Hands 5 Players

| Rank | Percent |
| :--- | ---: |
| Five-Low | 16.2 |
| Six-Low | 31.0 |
| Seven-Low | 27.7 |
| Eight-Low | 15.6 |
| Nine-Low | 6.4 |
| Ten-Low | 2.4 |
| Worse | 0.7 |
| Total | 100.0 |



