| Hoosier Backgammon Club |  |  | September-October 1993 Volume X, No. 5 |
| :---: | :---: | :---: | :---: |



The National Labor Day Backgammon Tournament provided non-stop action for over 100 players. Players approved of the improved Indy Swiss Format which guaranteed 4 matches. (FYI: All matches for the events marked with a will be sent to Kent Goulding to be rated.)

In the Championship Division, the title came down to friends Walter Trice (MA) and Doug Roberts (NY). They previously met in Round 5 with Walter winning. The 13 -point final match was close until this position was reached.

Doug Roberts - 7


Walter Trice - 9

2nd.. Doug Roberts (NY)
C1st.. Jeff Acierno (NY)
C2nd.. Neil Kazaross (IL)
C3/4.. John Brussel (IL)
$\mathrm{C} 3 / 4$.. Jon Stephens (OH)
In the Advanced Division, Steve Hast and Carol Falk had the best records after 8 rounds of 7-1. Carol's only loss came in Round 8 against Steve Hast. So it was fitting that they meet in the finals. The 13point final, was decided in game 12 by a doubled gammon.

> Advanced Division (42) 1st.. Steve Hast (PA) 2nd.. Carol Falk (MI) C1st.. Maurice Barie (MI)
> C2nd. Tony Siegel (CO)
> C3/4.. Bobbie Shifrin (IL)
> C3/4.. Mary Franks (IL)

The Intermediate title was hard fought between two locals with Richard Heinz besting Judy McHale.

Intermediate Division (14)
1st.. Richard Heinz (IN)
2nd.. Judy McHale (IN)
C1st.. Gail Latter (MI)
The Open Jackpot produced the biggest cash prize of the tournament. The outcome of the 15point final match was determined pretty much by the sequence of events in Game 13. Dean hit a late blot and offered a redouble in the following position.
Frank Frigo (10)

Frank took and a few moves later Dean faced tough double 6's.


Dean Muench (9) to play 6-6?
Dean moved $14-2 x, 13-1$ hoping to maintain the prime by recycling the checkers. This strategy didn't work as planned and Dean faced a redouble to 8 for the match?

Frank Frigo (10) doubles to 8? 4


Dean dropped to go to the Crawford Game. Dean won the Crawford Game and game 12 but Frank cashed big time by winning game 16.

Open Jackpot (30)
1st.. Frank Frigo (MI)
2nd.. Dean Muench (IL)
3/4. Frank Talbot (MI)
3/4.. Ed Petrillo (FL)
Open Jackpot (30)
1st.. Frank Frigo (MI)
2nd.. Dean Muench (IL)
3/4. Frank Talbot (MI)
3/4.. Ed Petrillo (FL)
Open Jackpot (30)
1st.. Frank Frigo (MI)
2nd.. Dean Muench (IL)
3/4. Frank Talbot (M1)
3/4.. Ed Petrillo (FL)
Open Jackpot (30)
1st.. Frank Frigo (MI)
2nd.. Dean Muench (IL)
3/4. Frank Talbot (MI)
3/4.. Ed Petrillo (FL)
Open Jackpot (30)
1st.. Frank Frigo (MI)
2nd.. Dean Muench (IL)
3/4. Frank Talbot (MI)
3/4.. Ed Petrillo (FL)
...continues Page 7..

> Amateur Jackpot (16)
> 1st.. Zohreh Zafaranian
> 2nd. Kurt Schurecht (IL)
> 2nd.. Alex Caraplis (NJ)

Championship Division (49) ${ }^{\circ}$
1st. . Walter Trice (MA)

Walter offered to play for the match and title but Doug dropped. Walter lost his first match in Round 1, but winning this finals match made it 9 straight to capture his second Indiana tournament title (he won the 39th Indiana Open).


Dean Muench (9) doubles to 4? 2

3rd Illinois State Backgammon Championship and 2nd America Cup
October 6-10, 1993 at the Woodfield Hilton Super Jackpot, Battle of the States, Masters, Kick-Off, Parlay From Hell, Doubles, Blitz, Championship, Advanced, Limited and more.

1993 HOOSIER BACKGAMMON CLUB Gammon Point Standings as of August 31st.
HBC Player of the Month for August is Cyrus Mobed with 174 gammon points.

| 1) | Don Woods................. 1026 | Stu Sherman.............. 178 | Julius High............. 64 | Tom Masterson......... 20 |
| :---: | :---: | :---: | :---: | :---: |
| 2) | Butch Meese............... 1006 | Judy McHale.............. 162 | Ray Fogerlund....... 64 | Sharon Baker........... 15 |
| 3) | Ellis Bray...................... 968 | Bill Julian................... 154 | Scott Richardson.... 60 | Stu Whitcomb........... 10 |
| 4) | Chuck Stimming........... 822 | Gino Agresti............... 150 | Richard Heinz........ 58 | Eric George............. 10 |
| 5) | Larry Strommen............ 738 | David Smith.............. 144 | Brian Nelson.......... 50 | Carol Falk................ 10 |
| 6) | Kevin McLeaster........... 726 | Holly Stowe............... 144 | Dennis Schulte...... 40 | Jon Stephens........... 10 |
| 7) | Gabe Stiasny............... 718 | Wendy Kaplan........... 124 | Len Carmine.......... 40 | Dave Cardwell.......... 10 |
| 8) | Cyrus Mobed................. 675 | Dragan Stevanovic..... 124 | Ali Shahin.............. 30 | Joe Miller................. 10 |
| 9) | Mary Ann Meese.......... 644 | John O'Hagan........... 120 | Eileen Perlman...... 30 | Marta Hilworth.......... 10 |
| 10) | Woody Woodworth......... 574 | Jeff Baker................. 118 | Stan Gurvitz.......... 30 | Dean Adamian.......... 10 |
|  | Steve Perlman............. 308 | Mick Dobratz.............. 108 | Jamie Curtis.......... 30 | Kay Beck................ 10 |
|  | Jim Curtis.................... 294 | Craig Hampton.......... 100 | Jay Ward............... 24 | Ellen Schremp............ 5 |
|  | Alan Haas..................... 276 | Mike Marr.................... 90 | Jim Woods............. 20 | Scott Kaplan .............. 5 |
|  | Ken Bruck.................... 222 | Jim Painter.................. 90 | Peter Kalba........... 20 |  |
|  | Jan Gurvitz.................. 205 | Tom Helt..................... 65 | Tom Hendryx......... 20 |  |
|  | Bill Gheen.................... 200 | Rick Bieniak................. 64 | Frank Alexander.... 20 |  |


|  | August 5th |  | August 12th |  | August 19th |
| ---: | :--- | :--- | :--- | :--- | :--- |
| Open 1st | Ellis Bray |  | August 26th |  |  |
| 2nd | Don Woods Stiasny |  | Cyrus Mobed |  | Jim Painter (MO) |
| 2nd | Gabe Stiasny |  | Con Woods | Richard Heinz Mobed | Julius High (TN) |

## BACKGAMMON Tournament Schedule

Oct 06-10... 3rd Illinois State and 2nd America Cup, Woodfield Hilton, IL
(708) 945-7801
Oct 22-24... Nation's Capital Fall Championship, Promenade, Bethesda, MD.
(301) 530-0604
Oct 29-31... New Hampshire Fall Classic, Sheraton Tara Wayfarer, Bedford, NH
(603) 863-4711
Nov 06-07.. Louisville Backgammon Club Tournament, Captain's Quarters, Louisville, KY................ (502) 587-3672
Nov 19-21.. NY/NJ Co-Op Big Apple Series, Best Western Oritani Hotel, Hackensack, NJ. (201) 833-2915
Nov 20-21.. San Diego Club's Autumn Gran Prix, Embassy Suits Hotel, La Jolla, CA...................... (619) 294-2007
Dec 05-10.. 1st World-Wide Twin Backgammon Championships, Las Vegas, NV.
(702) 893-6025
Feb 18-20... 16th Annual Winter Championships, Greentree Marriott, Pittsburgh, PA (412) 823-7500
Mar 18-20... 1994 Midwest Championships, Marriott Hotel, Oak Brook, IL.
(312) 338-6380

Thursdays... 7:00 PM at SPATS (842-3465) Castleton Square between J.C.Penneys \& L.S.Ayres.
845-8435

## THE MATHEMATICS OF BACKGAMMON The Drop/Take Line, Part II by Chuck Bower

Consider Position 1, a more or less typical late acepoint game. (If this setup looks familiar, it is Position B on page 5 of Inside Backgammon, Volume II, number 4.) White doubles. Does Black have a take? Although I can't remember the source (and I apologize to its author), I recall the following rule of thumb: An ace point game leads to $1 / 3$ wins, $1 / 3$ losses, and $1 / 3$ gammons. For now let's assume that this rule is correct and that it applies to Position 1. Does the rule mean this is a take? Presumably the author of the $1 / 3$ win, $1 / 3$ loss, $1 / 3$ gammon Rule was assuming that the ace point player owned the cube. In that case, your average loss per game should be less than 1 point in order to justify taking. If three typical acepoint games are played (with the defender owning the cube), you expect one win (+2), one simple loss ( -2 ), and one gammon loss ( -4 ) for a net of -4 points in the three games. Three drops would have netted -3 points, so the $1 / 3$... Rule calls for a drop.

Position 1


Suppose that the author of the $1 / 3$...Rule meant
that if all games were played to completion, the trailer wins $1 / 3$ of these games, gets gammoned $1 / 3$ of the time, and loses (without being gammoned) the remaining games. Again, assuming this rule is correct, does Black have a take? My article in the May-June issue of the HBC Newsletter (The Drop/Take Line) cannot be used to answer this question because it only applied to "non-contact races" when gammons were impossible. However, a similar analysis (Kleinman's Backgammon Football Field) as was used in my previous article can be applied to determine the drop/take line when gammons are possible. Without going into the mathematics, I present Table 1 which gives the trailing player's cubeless winning chances in order to justify taking. As in the previous article, these percentages refer to winning chances if all games are played to completion. The left hand column is the trailing player's cubeless gammon fraction. That is, of all games which the trailing player wins, the gammon fraction is the percentage of those wins which are gammons. Likewise, the top row is the leading player's cubeless gammon fraction. The intersection of the appropriate row and column is the minimum winning chance required by the trailing player in order to justify a take.

At this point you may be wondering what value such a table has. In a real backgammon game, how do you know what percentage of games your side will win, if all games are played to completion? What is your cubeless gammon fraction at this point in the game? Your opponent's cubeless gammon fraction? The answer is that you probably don't know any of these things very well, unless you've seen the position (or a similar one) before, and have rolled it out, either by hand or having a computer do the work. In the case that you don't use the cube in these rollouts (a good idea when using computer rollouts, given the current state of the software), this table tells you whether the position was a take or drop for the trailer. Thus the table's primary application is for cubeless rollouts, performed either by humans or computers.
..continues Page 8...

Table 1

|  |  | Leader's Gammon Fraction |  |  |  |  |  |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :--- | :--- |
|  | $0 \%$ | $10.0 \%$ | $20.0 \%$ | $30.0 \%$ | $40.0 \%$ | $50.0 \%$ | $60.0 \%$ | $70.0 \%$ | $80.0 \%$ |


| Bonus Coverage |
| :---: |
| Classic Game from the |
| Michigan Summer Championships |

The following game occurred during the Michigan Summer Championship Consolation Finals between Bob Holyon (WI) and Dean Muench (IL). As the tournament progressed to the finals, those who remained witnessed a classic back game.

Game 10 - Crawford Game

| Bob Holyon (10) |  |  | Dean | Muench (2) |
| :---: | :---: | :---: | :---: | :---: |
| 1) | $\frac{\text { roll }}{21}$ | $\frac{\text { played }}{115}$ | $\frac{\mathrm{roll}}{37}$ | $\frac{\text { played }}{20 x}$ |
| 2) | 54 | $20^{2}$ | 52 | 811 |
| 3) | 65 | $14 \mathrm{x}-9$ | 63 | 22 14x |
| 4) | 54 | 209 | 54 | $9^{92}$ |
| 5) | 65 | $3 x^{2}$ | 55 | $203^{2} 1 \mathrm{x}$ |
| 6) | 41 | 24 x 5 x | 65 | 20x EF |
| 7) | 31 | $245 x$ | 52 | 20x 23 |
| 8) | 32 | 23 5x | 54 | 20x 2 x |
| 9) | 64 | 21 EF | 32 | 204 x |
| 10) | 11 | $23 x^{2}$ | 22 | $21{ }^{18}{ }^{2}$ |
| 11) | 21 | $21 \mathrm{x}^{\text {F24 }}$ | 62 | 2318 |
| 12) | 43 | $2 \times 21$ | 22 | $23 \mathrm{x}-2111^{2}$ |
| 13) | 51 | 248 | 51 | 13 17x |
| 14) | 32 | 20 | 51 | 1316 |
| 15) | 61 | 185 | 31 | 13 20x |
| 16) | 31 | 2415 | 62 | 1411 |
| 17) | 52 | 154 x | 53 | 2011 |
| 18) | 42 | $9^{\text {F13 }} 11$ | 11 | 19x-16x |
| 19) | 51 | 2024 | 31 | $7{ }^{\text {F11 }}$ |
| 20) | 64 | 11-5 $5^{\text {F15 }}$ | 66 | $7^{2} 10 \times 3$ |
| 21) | 32 | 238 | 52 | 69 |
| 22) | 62 | 14x 6 | 53 | 20x-17 |
| 23) | 62 | 238 x | 62 | 17 x |
| 24) | 43 | 2120 | 32 | 12 |
| 25) | 52 | $15 \times 1$ | 65 | 206 |
| 26) | 21 | $20^{\text {F23 }}$ | 44 | 83 |
| 27) | 51 | $15^{\text {F21 }}$ | 62 | 37 |
| 28) | 55 | $5^{\text {F20 }} 10$ | 61 | 7 NP |
| 29) | 62 | 7 | 64 | 3 NP |
| 30) | 44 | 12166 | 63 | 3 EF |
| 31) | 55 | $11^{2 \times 221,16} 7$ | 51 | 37 |
| 32) | 61 | 510 | 21 | $5{ }^{2}$ |
| 33) | 61 | 46 | 63 | 4 x NP |
| 34) | 54 | 21x-16 | 32 | $22 \times 5$ |
| 35) | 64 | 2118 x | 42 | $2318 x$ |
| 36) | 43 | 2115 | 21 | $1 \times 22$ |
| 37) | 33 | EF | 43 | 115 |
| 38) | 64 | 21 10x | 21 | $24 \mathrm{x}-22$ |
| 39) | 52 | 2310 | 61 | 165 |
| 40) | 65 | 1716 | 52 | 9 x |
| 41) | 22 | $19 \mathrm{x}-17^{\text {F Bar }}$ | 63 | 223 |

Game 10 continues

| Bob Holyon (10) |  |  | Dean | Muench (2) |
| :---: | :---: | :---: | :---: | :---: |
| 42) | $\frac{\text { roll }}{64}$ | played | $\frac{\text { roll }}{43}$ | $\frac{\text { played }}{18 \mathrm{NP}}$ |
| 43) | 52 | $10^{-17}$ | 43 | 11 |
| 44) | 41 | 1314 x | 32 | 221 |
| 45) | 41 | $9{ }^{2}$ | 22 | $1^{4}$ |
| 46) | 42 | 134 | 52 | 171 |
| 47) | 31 | $8 \mathrm{x}-5$ | 65 | EF |
| 48) | 41 | 93 x | 42 | 23 EF |
| 49) | 54 | $5^{\text {F14 }}$ | 53 | 22x-17 |
| 50) | 42 | 218 x | 41 | 241 |
| 51) | 42 | $1 \times 8$ | 54 | EF |
| 52) | 64 | 11 | 55 | EF |
| 53) | 33 | $3^{2}$ | 52 | 18 |
| 54) | 22 | $7 \times 21^{2}$ | 62 | 23 NP |
| 55) | 41 | $3^{17} 4$ | 32 | 23 |
| 56) | 51 | 15 | 11 | $2^{3} 1$ |
| 57) | 64 | $11^{\text {F21 }}$ | 32 | NP |
| 58) | 64 | $5^{\text {F15 }}$ | 54 | 14 x |
| 59) | 22 | EF | 21 | 11 |
| 60) | 42 | 21 2x | 31 | $24 \times 8$ |
| 61) | 22 | EF | 63 | 15 |
| 62) | 54 | 20 17x | 53 | EF |
| 63) | 54 | 8 | 31 | 2412 |
| 64) | 32 | $2^{\text {F5 }} 1 \mathrm{x}$ | 54 | EF |
| 65) | 42 | $4^{58} 6$ | 31 | 24x 9 |
| 66) | 31 | 223 | 63 | 186 |
| 67) | 51 | 19x-14 | 54 | EF |
| 68) | 61 | 167 x | 61 | 24 EF |
| 69) | 22 | $1 \mathrm{x}^{277,3}$ | .. | CB |
| 70) | 41 | 1213 | . | CB |
| 71) | 66 | 160 |  | CB |
| 72) | 65 | 01 | 61 | 19x EF |
| 73) | 51 | 19 | 33 | EF |
| 74) | 33 | 7 | 52 | EF |
| 75) | 63 | 40 | 63 | 16 |
| 76) | 63 | $0^{2}$ | 55 | 69 |
| 77) | 54 | $0^{2}$ | 32 | 60 |
| 78) | 62 | $0^{2}$ | 64 | 02 |
| 79) | 55 | game |  |  |



On August 11th, Mick Dobratz became a grandfather...Out of state visitors for August were Julius High on August 19th and Jim Painter on August 19th and 26th...Richard Heinz reached the Winners' Circle for the first time on August 19th...Don't ask Chuck Stimming to plan a trip for you. Although he had a great time in Spain, the trip was during the National Labor Day Backgammon Tournament.

## WORLD CUP III Tino Lechich vs Ed O'Laughlin Best 3 of 5-11 Point Matches <br> Match \#1 Tino won 11-2 in 6 games. Match \#2 Ed won 11-2 in 7 games.

The HBC Newsletter presents a match between Tino Lechich and Ed O'Laughlin from the WORLD CUP III, August 1992.

Instructions: You will need a backgammon board to follow along. The board is numbered 1 to 24 based on the view of the player on roll. Each player will always be moving from a higher to lower point with only the point(s) moved to used. The home portion of the board is numbered 1 thru 6 . Bearing off is noted as moving to the zero ( 0 ) point. To make it easier to follow, the larger number rolled is noted first. In some situations where the smaller number rolled is forced, it will be presented first. An example: being on the BAR with a roll of 5-2 with the 5 -point made and the 2 -point open.

Abbreviations used: Closed Board(CB), Entry Failure(EF), Misplay(MP), No Play Possible(NP), opponent's piece was hit ( $\mathbf{x}$ ), superscript( $\mathbf{5}^{2}$ ) denotes 2 or more pieces moving to a point; this example has 2 pieces moving to the 5 point.

In the doubling positions, Tino is the dark checkers and Ed the light. The positions are shown from Tino's point of veiw; study them first before going through the games.




Black-3 White-0
White doubles to 2 ?


Black-3 White-1 Black doubles to 2?


Black-4 White-1 Black doubles to 2?


Black-6 White-1 Black doubles to 2?


Game 1

| Tino Lechich - 0 |  |  | Ed O'Laughlin - 0 |  |
| :---: | :---: | :---: | :---: | :---: |
| 1) | $\frac{\mathrm{roll}}{6}$ | played | $\frac{\mathrm{roll}}{31}$ | $\frac{\text { played }}{5^{2}}$ |
| 2) | 63 | 1810 | 53 | 821 |
| 3) | 63 | $5{ }^{2}$ | 21 | 21 |
| 4) | 65 | 75 | 42 | $4{ }^{2}$ |
| 5) | 55 | $13^{2} 8$ | 31 | 9 |
| 6) |  | uble to |  | pass |

Game 2

| Tino Lechich - 1 |  |  | Ed O'Laughlin - 0 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | roll | played | roll | played |
| 1) | 64 | 14 | 33 | $21^{2} 3^{2}$ |
| 2) | 21 | $11^{\text {F14 }}$ | 41 | 95 |
| 3) | 52 | 811 | 54 | 85 |
| 4) | 53 | $3^{2}$ | 63 | 75 |
| 5) | 54 | 82 |  | double to 2 ? |
| 6) |  | take | 53 | $2^{2}$ |
| 7) | 21 | 61 | 65 | 10 |
| 8) | 44 | $4 \mathrm{x}^{2} 2^{2}$ | 41 | $24 \mathrm{x}-20$ |
| 9) | 54 | 213 | 41 | $4 \mathrm{x}-3$ |
| 10) | 66 | EF | 31 | $7^{2}$ |
| 11) | 65 | EF | 51 | $1 \times$ |
| 12) | 22 | EF | 55 | 58 |
| 13) | 51 | 24x EF | 42 | EF |
| 14) | 51 | 246 | 31 | 2410 |
| 15) | 62 | $18 \times 1$ | 52 | 20 EF |
| 16) |  | double to |  | pass |

Game 3

| Tino Lechich - 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 1) | roll | played | Ed O'Laughlin - 0 |  |
| 11 | 11 | 65 | played |  |
| 2) | 65 | 58 | 44 | $5^{2}$ |
| 3) | 43 | 921 | 53 | $16 x$ |
| 4) | 32 | 2321 | 54 | $112 x$ |
| 5) | 63 | 16 |  | double to 2? |
| 6) |  | pass |  |  |

Game 4

| Tino Lechich - 3 |  |  | Ed O'Laughlin - 1 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | roll | played | roll | played |
| 1) |  |  | 54 | 820 |
| 2) | 62 | 5 x | 51 | $20 \times 7$ |
| 3) | 51 | $205 x$ | 21 | 237 |
| 4) | 42 | 2011 | 62 | 721 |
| 5) | 33 | $53^{2} 21$ | 54 | $2{ }^{2}$ |
| 6) | 43 | $4 \times 10$ | 32 | 23 21x |
| 7) | 65 | $204 x$ | 21 | 24 21x |
| 8) | 42 | 216 | 52 | 14 x |
| 9) | 53 | 2215 | 63 | 821 |
| 10) | 62 | 94 x | 62 | 237 |
| 11) | 32 | 4 | 44 | $3 x^{3} 2$ |
| 12) | 61 | 18 | 51 | 17 |
| 13) | 52 | $8 \times 11$ | 54 | EF |
| 14) | 54 | 137 | 31 | 243 |
| 15) |  | double to 2 ? |  | pass |

Game 5

| Tino Lechich - 4 |  |  | Ed O'Laughlin - 1 |  |
| :---: | :---: | :---: | :---: | :---: |
| 1) | roll | $\frac{\text { played }}{11} 5$ | $\frac{\text { roll }}{54}$ | $\frac{\text { played }}{20 x-15}$ |
| 2) | 42 | 2111 | 43 | 8 |
| 3) | 335 | $5^{2} 2110^{\text {F51 }}$ misplay | 61 | $7^{2}$ |
| 4) | 63 | $7{ }^{2}$ | 31 | $5{ }^{2}$ |
| 5) | 41 | 8 | 62 | 16 |
| 6) | 62 | 79 x | 21 | 235 |
| 7) | 32 | $4^{2}$ | 43 | 6 |
| 8) | 52 | 422 | 41 | 222 |
| 9) | 65 | 11 | 61 | 15 |
| 10) | 66 | $15^{2} 52$ | 22 | $11^{2 \text { F15, } 13} 4$ |
| 11) |  | double to 2? |  | take |
| 12) | 54 | 1011 | 54 | 64 |
| 13) | 21 | $5^{77} 6$ | 53 | 64 |
| 14) | 31 | 6 | 21 | $5^{\text {F7 }} 12$ |
| 15) | 43 | $4^{\text {F11 }}$ | 63 | 65 |
| 16) | 62 | 0 | 62 | 73 |
| 17) | 32 | $3^{\text {F6 } 6}$ | 54 | 30 |
| 18) | 52 | 02 | 64 | $0^{2}$ |
| 19) | 54 | $0^{2}$ | 64 | $0^{2}$ |
| 20) | 64 | $0^{2}$ | 53 | $0^{2}$ |
| 21) | 52 | $0^{2}$ | 44 | $02^{2} 1$ |
| 22) | 66 | $0^{4}$ | 62 | $0^{2}$ |
| 23) | 54 | game |  |  |

Game 6

| Tino Lechich - 6 |  |  | Ed O'Laughlin - 1 |  |
| :---: | :---: | :---: | :---: | :---: |
| 1) | $\frac{\mathrm{roll}}{61}$ | $\frac{\text { played }}{72}$ | $\frac{\text { roll }}{41}$ | $\frac{\text { played }}{923}$ |
| 2) | 41 | $2 \mathrm{x}-1 \mathrm{x}$ | 51 | 20 24x |
| 3) | 54 | $20^{2}$ | 41 | 923 |
| 4) | 22 | $5 x^{2} 4^{2}$ | 65 | EF |
| 5) |  | double to 2? |  | take |
| 6) | 42 | 911 | 54 | EF |
| 7) | 61 | $7^{2}$ | 65 | EF |
| 8) | 52 | 89 | 42 | 239 |
| 9) | 44 | 1520 | 21 | $7{ }^{2}$ |
| 10) | 66 | $814^{2}$ | 62 | 34 |
| 11) | 42 | $1{ }^{6}$ | 53 | $3^{\text {F88 }} 4$ |
| 12) | 52 | 7 | 21 | $11 \times 7$ |
| 13) | 42 | 233 | 51 | $8{ }^{2}$ |
| 14) | 31 | 205 | 52 | 15 x |
| 15) | 51 | $24 \times 3$ | 21 | 235 |
| 16) | 43 | $1{ }^{\text {F8 }}$ |  | double to 4? |
| 17) |  | take | 41 | $7^{2}$ |
| 18) | 65 | $1^{2}$ | 51 | $18 \times 6$ |
| 19) | 65 | EF | 43 | 19x 5 |
| 20) | 41 | 24 EF | 31 | 14 |
| 21) | 65 | EF | 65 | $8{ }^{\text {F19 }}$ |
| 22) | 42 | 231 | 41 | $2 \times 13$ |
| 23) | 62 | $23 \mathrm{x}-17 \mathrm{x}$ | 52 | 23 EF |
| 24) | 61 | 17 | 51 | EF |
| 25) | 54 | $12 \times 13$ | 31 | EF |
| 26) | 52 | 810 | 61 | 19 EF |
| 27) | 11 | $6 \mathrm{x}-523$ | 53 | EF |
| 28) | 53 | 51 | 53 | EF |
| 29) | 61 | 174 | 64 | 19 EF |
| 30) | 66 | $0^{2}$ | 11 | EF |
| $31)$ | 62 | 03 | 42 | 2315 |
| 32) | 43 | 01 | 52 | 1813 |
| 33) | 22 | $1^{3} 0$ | 42 | 17 |
| 34) | 41 | $0^{2}$ | 51 | $12^{\text {F17 }} 6$ |
| 35) | 51 | $0^{2}$ | 62 | 611 |
| 36) | 64 | $0^{2}$ | 54 | gammon |

TL - 11
EO-2
Match \#3 of 5

... 1993 NLD Results Continue...
Labor Day Jackpots (8 each)
\#1.. Paul Franks (IL)
\#2.. Abbas Zaltash(PA)/Jim Curtis(IN)
\#3.. Jon Vietor (CA)
\#4.. Abbas Zaltash(PA)/Peter Zacks(CA)
Intermediate Jackpot (8)
1st.. Lois Davenport (MI)
Doubles (16)
1st.. Mary Franks \& Jake Jacobs (IL)
2nd.. Tak Morioka \& Ken Bond (IL)
Free Appreciation Event (105)
1st.. Zohreh Zafaranian (TX)
2nd.. Jon Vietor (CA)
Open Fast Break (16)
1st.. Walter Trice (MA)
Advanced Fast Break (16)
1st.. Joe Miller (OH)/Kurt Schurecht (IL)
Open MicroBlitz (32)
1st.. Paul Albert (CA)
Advanced MicroBlitz (32)
1st.. Carl Severino (IL)

Granite State Backgammon Club presents
Second Halloween Constume Contest
\&


12th Annual Granite State Open Backgammon Championships \&
9th Annual
New England Doubles Backgammon Championships

Friday-Sunday
October 29-31, 1993
Info: (603) 863-4711

THE MATHEMATICS OF BACKGAMMON The Drop/Take Line, Part II<br>by Chuck Bower

...continued from Page 3..
Now let's get back to the problem. We have assumed that Position 1, if played to completion a large number of times, results in $1 / 3$ of all games being gammon wins for the leader, $1 / 3$ simple wins for the leader, and $1 / 3$ simple wins for the trailer. Is this position a take? Since the trailer won no gammons, his gammon fraction is $0 \%$. The leader's gammon fraction is the fraction of games which ended in gammons ( $1 / 3$ ) divided by the fraction of games which he won $(1 / 3+1 / 3)$. So his gammon fraction is $1 / 3$ divided by $2 / 3$ which is $50 \%$. Now go across the top of the table to the $50 \%$ column, then go down to the 0\% row and read the result: $32.7 \%$. The trailer has a take if he wins at least $32.7 \%$. Since he actually won $1 / 3$ ( $=33.3 \%$ ), the position is a close take. This may seem to contradict our earlier calculation which said that a $1 / 3$ win, $1 / 3$ simple loss, $1 / 3$ gammon loss position was a drop, but look more carefully.

In the early calculation, we assumed that the trailer owned the doubling cube. Therefore he can use the cube to end the game prematurely in the event that he get's a large lead. Some of the rolled out games which ended in losses never would have been completed because Black would have used the doubling cube to end the game. On the other hand, White wins the same games in real life (with a cube) that he does in the rollout (no cube) because he has presumably already given the cube away and can no longer force a premature ending. This example points out the value of cube ownership.

The table should not be taken as gospel. It is a tool which can be applied to get a feeling for whether or not a position is a take. Many assumptions were made in building this table, and I list them now.

1) The table does not address backgammons. The theory used to derive the table can be easily extended to backgammons, but then there would be four inputs (leader's gammon fraction, leader's backgammon fraction, trailer's gammon fraction, trailer's backgammon fraction) instead of just two. Instead of a single table, you would need many pages of tables.
(Moral: Don't get backgammoned!)
2) I assumed that by the time the trailer reaches his opponents drop/take line, that his gammon fraction is only half what it was when he took the cube. This assumption determines the location of the leader's drop/take line. Recall that the drop/take line corresponds to a point in
the game where the trailer (not owning the cube) neither gains nor loses equity by dropping. Both dropping and taking will lead to the same average result in the long run.
3) I assumed that the doubling cube could be used with high efficiency. Another way of saying this is that in the event that the trailer becomes sufficiently good enough to redouble, he will actually reach his opponents drop/take line without passing over it.
4) I assume that the rollout was performed sufficiently many times that the result can be trusted from a statistical standpoint. As always, beware in trusting a computer result without watching it play out the position several times to verify that it plays the critical situations more or less correctly.

Now let's go back to Position 1 once again. Is this a money take? The backgammon council of wise scribes votes an emphatic NAY! For example, Robertie in Advanced Backgammon says: "A prime against a deep anchor is a winning advantage; lacking other compensation, the side with the anchor will have to drop a double." What does Expert Backgammon (EXBG) version 1.61 have to say about this position? Playing against itself over 100,000 times, EXBG was $85 \%$ sure that the White was too good to double! Black only won $13.5 \%$ of the games, while $22 \%$ of all games ended in gammon for White and $2.6 \%$ of games were backgammons. However, EXBG 1.61 is known to hang around too long on the acepoint and risk the backgammon with a hopeless board. I took Black's position and played EXBG 200 games, also winning only $13.5 \%$ while losing one backgammon and 38 (19\%) gammons. I did so poorly (playing Black) that statistically the probability that the position is a take (for me versus EXBG, anyway) is less than 1 in a million. However, based on these 200 games there was only a $15 \%$ chance that White should play for a gammon. In defense of the (long forgotten) author of the $1 / 3$... Rule, he/she may have been referring to an acepoint game much earlier in development, when the leader's board had lots of open points which may be trouble to fill (and the trailer may be able to move up his/her anchor as a consequence). Also, in early acepoint games where a full prime isn't built, the trailer will likely get a few fly shots in the outfield before the bearin is completed.

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