# Malcolm Davis vs. Ed O’Laughlin 

Monte Carlo 2000

## 11 Points

## Match 1: Introduction

Malcolm Davis's first opponent is Ed O'Laughlin. Their match is an 11-pointer from the Monte Carlo tournament of 2000. The winner of Monte Carlo is known as the World Champion. In fact, the tournament is called the Monte Carlo World Championship. That's somewhat of a stretch-there's no qualifying system as there is in chess-but not a huge stretch. Monte Carlo is one of the world's biggest, strongest, and most prestigious tournaments. It's no surprise that both Davis and O'Laughlin were competing at Monte Carlo 2000.

Ed O'Laughlin has been playing and studying backgammon for decades. He's also been a consistent winner. He won the 2004 Chicago Masters and the 2004 Boston Open. He was second in the 2004 Paris Open, and second in the 2002 Indiana Open Tournament of Champions. He won the 2002 Pittsburgh Championship, the 1989 Indiana Open, and many others besides. In 1995 he was rated second on Kent Goulding's International Rating List. Ed O'Laughlin is a worthy opponent for Malcolm Davis.

## Game 1

Malcolm Davis (Black) needs 11

## Ed O'Laughlin (White) needs 11

1. 64: ?


Position 1.

1. 64: $8 / 26 / 2$

All the world in a grain of sand. It seems that modern opening theory, and much history too, is contained in the first move of this match.

| 3-ply Rollout (Money, Truncated); |  |  |  | Eval. |
| :---: | :---: | :---: | :---: | :---: |
| 24/18 13/9 | +0.018 |  | $\pm .009 ;$ | +0.011 |
| 24/14 | +0.010 | (-0.008) | $\pm .008 ;$ | +0.015 |
| 8/2 6/2 | +0.010 | (-0.008) | $\pm .009 ;$ | +0.007 |



Position 1A: Game Continuation. White on roll after Davis's 8/2 6/2.
"Although 64 could make the two point, this is definitely inadvisable since the two point is too far advanced to have much blocking potential."

That's Paul Magriel in 1976 (Backgammon, p. 55) expressing the contemporary thinking about making the 2 point with opening 64 . Today, most players still prefer either $24 / 14$ or 24/18 13/9, but a significant minority make the 2 point. No doubt some prefer the 2 point because they feel better able than their opponents to handle the followup. Many, however, believe making the 2 point is not only practically but technically best.

How should you play an opening 64 ? Nobody knows. Bot rollouts say Davis's play is virtually as good as the main alternatives: the conservative running play $24 / 14$, and the ambitious split-and-build 24/18 13/9. Strong human players are now reconciled to the possibility that making the 2 point is really pretty good.

The drawback is that two checkers go to a deep point, rather than to a better blocking point within the prime-field that includes the 8 point. That's bad. However, the instant two-point board and the safe 10 -pip advance are worth a lot. It wasn't so long ago in backgammon history that Davis's move was roundly ridiculed as too impure, but now we know better-at least we think so. The 2 point has definite advantages. Let's look at them more closely.

In the early game, players try to make new points. They take risks to do so. They slot in their inner boards; they split their back checkers to control territory and try for advanced anchors; and they expose builders in their outfields to try to make blocking points. They hit and are hit back. A stronger inner board is an advantage in an exchange of hits or blot-hitting contest. Though making the 2 point at Move 1 compromises blocking chances, we now know that a second inside point is very useful. Useful enough, in fact, that we can't dismiss it out of hand, the way we did in the 1970s and ' 80 s.

Not only does the 2 point block White's checkers on the 1 point, but it blocks entry from the bar. The chances are 8 in 9 that one checker can enter against a two-point board. Though that may seem high, it's a lot worse than $35 / 36$, which is the chance to enter one checker against one inner point. If you're lucky enough to hit two checkers, the second inside point really pays off. That's because your opponent is a slight underdog to enter both checkers in your two-point board. With two on the bar against a mere onepoint board, he's a 25 -to-11 favorite to get both men in.


Position 1A-1: Example.
Early tactical advantage of the 2 point.
(a) White to play 22. He stays on the bar. What would normally be a very good roll, enabling White to make the 4 point, is useless. Black is close to a double.
(b) White to play 32. Because Black owns the 2 point, White can't hit back with this 32 , or with 21. Black is far from a double, but White is a very clear underdog: outboarded, behind in the race, more checkers back, third back checker somewhat vulnerable.

Once in a while, the stronger board will keep your opponent on the bar (Position 1A-1 (a) above). Of course that's a big swing in your favor. More subtly, the 2 point restricts your opponent's entering options (Position 1A-1 (b)). If he rolls something containing a 2 , he can't enter with the 2 but must come in with the other number. For example, he may be able to hit with a 3 somewhere, but not with a roll of 23 because he must use the 3 to come in. Similarly, he may be able to do something else useful with a 3 , such as making a point. Your second inner-board point cuts his chances to do so.


Position 1A-2: Example. Two-point board improves.

Another reason a two-point inner board is valuable is that it's only one step away from a threepoint board! A three-point board is much better than a two-point board: It keeps one checker out $1 / 4$ of the time, and $3 / 4$ of the time it stops at least one of two checkers from entering. Of course, it restricts even more of your opponent's options when he does enter.

In Position 1A-2, Black makes the 5 point for a three-point board. Then he attacks, $2 / 1 *(2)$. Attacking is often the right strategy when the opponent has one checker back and you have more. Prime an anchor; attack a blot. Here, White has nine rolls to stay out, and his entering 62 and 41 are awkward, forcing a direct shot at a second blot. Black's attacking play thus creates 13 bad numbers for White.


Position 1C: Variation.
White on roll after 24/18 13/9.

The old-style running 64 opener is shown above in Position 1B. Black tries to escape a back checker, moving it 10 pips toward freedom. Though that gains a lot when White misses the fleeing checker, it loses a lot when White hits. Also, Black's back checker is sometimes vulnerable to attack. If White rolls 55 he makes an instant three-point board, $8 / 3^{*}(2) 6 / 1^{*}(2)$, achieving a strong doubling position if Black stays on the bar.

24/14 is definitely the play in gammon-save (GS) situations, where you care little whether you win a gammon, but you very much hate to be gammoned. Escaping a back checker and entering a simple racing game is useful if you're well ahead in the match. Decreasing your opponent's gammon chances is then very important.

Davis's $8 / 26 / 2$ is best in the reverse situation: gammon-go, or GG. If you need a gammon badly, you're well advised to improve your board for tactical advantage. At GG, that's worth the severe decrease in blocking chances.

At double match point (DMP), it's very bad to weaken your blocking structure permanently. As Magriel wrote, the 8 and 2 points can't be part of the same 6 -prime. At DMP, $8 / 26 / 2$ is therefore out; $24 / 14$ is clearly best. The third alternative, $24 / 1813 / 9(1 \mathrm{C}$ above $)$, is too loose for DMP. White has too many useful hitting numbers. Normally one of the main benefits of $24 / 1813 / 9$ is to play for an anchor, but an anchor has no gammon-saving defensive value at DMP.

In a normal situation, for money or early in a match, the best move is anybody's guess. The split-andbuild play, $24 / 1813 / 9$, is a risky and aggressive try for quick improvement. If White hits loose on the 7 point, Black can gain quite a bit by hitting back. If White misses, as with 43 or 32, Black also comes out ahead. But if White hits on Black's 9 point, or if he hits on the 7 and Black misses the return, then White is doing well.

The enterprising $24 / 1813 / 9$ is probably most likely to lead to complicated play, so you may want to try it if you think you're clearly stronger than your opponent. Otherwise, just make the move you're most familiar and comfortable with. Davis's $8 / 26 / 2$ is unfamiliar to many opponents, so if you invest some time studying the types of positions that are likely to occur thereafter-including early cube decisions-you may have a potent weapon.

Davis: I was making the 2 point at the time. It was a position that people weren't familiar with, and I wasn't totally convinced it was wrong. Most people thought it was wrong, so it was good for my reputation. I've started playing 24/18 13/9 now pretty consistently, but at the time of this match I was making the 2 point.

O'Laughlin: In the GNUBG rollouts I've been doing, making the 2 point and running are the two plays. [GNU Backgammon, or GNUBG, is another very strong bot.]

The last time I played Davis (1997-Match 2 of this book), he began the match by making his 2 point with 64. No doubt he's burned a lot of midnight oil in study of this opener. In Match 2 we'll explore more of the theoretical issues of this interesting move.

## 1. -----

 65: ?

## Position 2.

1. $\qquad$ 65: $24 / 13$


Position 2A: Game Continuation.
Black on roll after O'Laughlin's 24/13.


Position 2B: Variation.
Black on roll after 13/7 13/8.

Davis took the lead in the race with his 10 -pip opening roll, but O'Laughlin gets 11 pips. Though a one-pip lead in a long race does not a favorite make, 65 escapes a back checker safely. That achieves an advantage in number of back checkers. O'Laughlin now has only one checker left to clear Davis's side of the board,
 and that's a type of racing advantage the pip count alone can't measure. In conjunction with the close pip count and Davis's lack of blocking threats, it's effectively a racing lead.

Consider Position 2B above. After your opponent opens by making the 2 point, the natural game plan is blocking. You have a disadvantage in pips (bad for racing) and a weaker inner board (bad for tactics), so it makes sense to try another game plan. Also, your opponent's compromised blocking structure means he can't easily counterblock, and he can't easily restrain your checkers that he manages to hit. So in a way, the natural play in Position 2 is $13 / 713 / 8$, trying to build a quick blockade. Aggressive blocking attempts are indicated against opening 64 making the 2 . Therefore 13/7 13/8 may be justified.

Alas; though you badly want to establish a blocking structure after your opponent opens by making the 2 point, 65 is not a very good roll for blocking. The stronger opposing board makes it more costly to be hit, and $13 / 713 / 8$ is risky and inflexible. It leaves 17 hitting numbers, and takes two potentially useful spare checkers off the midpoint. If you slot into a direct shot on your side of the board in the opening, you generally want to slot your 5 point: preferably with a $1,6 / 5$, to unstack your overloaded 6 point. Position 2B isn't nearly promising enough to justify slotting the bar.


The split-and-build, $24 / 1813 / 8$, is a bit loose given the stronger opposing board. It's not completely hopeless-the opponent's stripped 8 point devalues many of his hitting 1's-but it has to take a back seat to the strong and straightforward $24 / 13$. Unlike chess, backgammon doesn't give you complete control of your game plan; you have to do the best with what the dice give you. Not for nothing did the ancients call 24/13 Lover's Leap. Even when it's antithematic, it's apt to be good. In reply to Davis's opening 64, it's definitely best.
2. 31: $8 / 56 / 5$
42: $8 / 46 / 4$
3. 61: $13 / 78 / 7$
62:?


EO: 150
Needs 11

64

MD: 146
Needs 11

## Position 3.

## 3.

62: $24 / 16$The game has taken a normal course since Davis made his 2 point. O'Laughlin now tries to capitalize on his effective lead in the race. If Davis doesn't hit, O'Laughlin can come around the corner and try to restrain Davis's back checkers. A bonus for O'Laughlin is that Davis's hitting 4 is duplicated to make the best major split, 24/20.

Slotting moves are fundamentally wrong in this position. Magriel would consider them bold, and everything in his Backgammon chapter "Safe Play vs Bold Play" indicates that O'Laughlin should play safely here. With no anchor and fewer back checkers, against Davis's stronger board, O'Laughlin must not expose more blots to direct shots.

## 4. 21: ?



Position 4.
4. 21: $24 / 226 / 5$

O'Laughlin is threatening to complete the escape of his back men. But the straggler isn't safe yet; O'Laughlin's blot will often remain exposed in his own outer board. Therefore, Davis wants to increase his con-

| $3-$ ply Rollout (Money); |  | Eval. |  |
| :--- | :--- | :--- | :--- | :--- |
| $24 / 226 / 5$ | -0.238 | $\pm .012 ;$ | -0.244 |
| $24 / 2224 / 23$ | $-0.275(-0.037)$ | $\pm .011 ;$ | -0.250 |
| $7 / 524 / 23$ | $-0.298(-0.060)$ | $\pm .022 ;$ | -0.272 | trol of that area. To do so, Davis must split. Against O'Laughlin's two-point board, splitting isn't very dangerous, and is definitely recommended. The only question is how to split.

Besides his actual play, Davis has 24/22 24/23; 7/5 24/23; and 6/4 24/23. He need not consider 24/22 7/6. If Davis is going to split to the 22 , there's no reason to give up such a useful point as the 7 .

Davis: I thought maybe I should split since Ed had escaped both back checkers. I didn't want to come up with both of my back checkers, though that does freeze Ed's naked 8 point. I don't know the right play, actually. It looks very close.


Position 4A: Game Continuation.
White on roll after Davis's 24/22 6/5.


## Position 4B: Variation.

White on roll after 24/22 24/23.
$\begin{array}{llllllllllll}24 & 23 & 22 & 21 & 20 & 19 & 18 & 17 & 16 & 15 & 14 & 13\end{array}$

Splitting to the 22 point gives direct control of O'Laughlin's 9 point. That guarantees a direct shot on O'Laughlin's 61, 54, and 43. Also, the 22 would be a good anchor for Davis, not only providing good outfield control, but increasing racing chances. $24 / 22$ slots that important point. I think $24 / 22$ is necessary.

Davis's play leaves a checker on the 24, out of range of O'Laughlin's 8 point. On the 23, the rearmost checker is exposed to direct attack from O'Laughlin's 8 , and the 8 point blocks it. Why should $24 / 23$ even be considered?

There's a visual trick that makes it easy to see that 24/23 provides better coverage of O'Laughlin's outer board. Davis's back checkers are two points apart on the 24 and 22, and O'Laughlin's blocking points are also separated by two. This means some of the same numbers restrain both of the split back checkers. 24/23 leaves the back men separated by one; that ought to diversify good numbers on O'Laughlin's side. Does it really?

Indeed it does. On the 22 and 24, combinations of odd numbers-one-fourth of the total-aren't particularly good, whereas from the 22 and 23 any number can be used to make the 22 point or move to O'Laughlin's outer board or 5 point. That's better coverage and better anchoring chances-if the checker on the 23 isn't attacked first. The question is whether the combined flexibility of both back checkers is worth the extra blockage and exposure of the one on the 23 .

Over the board I would have played 24/22 24/23. I would have evaluated combined flexibility as the key factor. Coverage is important here. O'Laughlin is poised to come around the corner, and Davis wants to catch the fleeing checker. O'Laughlin's 8 point is stripped, so Davis needn't necessarily fear being attacked, at least not yet.

The live-cube rollout supports Davis's play. There are some tactical drawbacks to 24/23: O'Laughlin's non-clearing 44 and 22 can point on Davis's head, and 31 and 51 play better to hit twice. In combination with O'Laughlin's increased attacking chances over the next few turns, the live cube may swing things against 24/22 24/23.

Rollouts with other settings are similar to the one shown above. A shorter score-based 3-ply rollout favors Davis's play but at less than $95 \%$ confidence. A score-based 2-ply live-cube rollout also supports Davis, this time above the $95 \%$ confidence level. Very likely, he's found the best move.

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4. -----
44: 13/5(2)
5. 62:?
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EO: 126
Needs 11

64

MD: 143
Needs 11

Position 5.
5. 62: $13 / 724 / 22$
?
O'Laughlin makes a key point and Davis misses again. However, he's able to make the 22 point. His holding and racing chances may be enough to keep him in the game.


## Position 6: White on roll.

Should he double to 2? Can Black take?

Should O'Laughlin double? He has a clear advantage, nine pips ahead in the race with Davis's back checkers under considerable restraint. Does Davis even have a take?

Such 22-point-game cube decisions come up very often. Players at and below the expert level routinely take in similar positions. They're correct. Here,

| 3-ply Rollout |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No double |  | +0.700 |  |  | $\pm .018$ |
| Double, take |  |  | +0.649 (-0.051) |  | $\pm .024$ |
| Double, pass +1.000 (+0.300) |  |  |  |  |  |
| Wbg | Wg | $\begin{aligned} & \text { W } \\ & 70.3 \end{aligned}$ | $\begin{aligned} & \mathrm{L} \\ & 29.7 \end{aligned}$ | $\begin{aligned} & \mathrm{Lg} \\ & 02.4 \end{aligned}$ | $\begin{aligned} & \mathrm{Lbg} \\ & 00.0 \end{aligned}$ |
| 00.1 | 04.6 |  |  |  |  |
| Cubeless equity: +0.429 |  |  |  |  |  | Davis's combined holding and racing equity gives him decent chances. In fact, O'Laughlin shouldn't double unless he thinks he may get an incorrect pass. The volatility is too low; O'Laughlin's only crushing roll is 66 . There aren't many other sequences that force Davis to pass, and most lead to close passes. In other words, when O'Laughlin does "lose his market," he doesn't do so by very much.

Snowie's rollout recommends by .051 that O'Laughlin keep the cube. The evaluation recommends no double by a slightly smaller margin. A 360 -game full 3-ply cubeless rollout gives about the same results.
5.
6. 44: ?

63: $16 / 1013 / 10$


Position 7.
6. 44: $22 / 18(2) 7 / 3(2)$

Still behind in the race, Davis hops out to the 18 point to play a decent two-way game. He has reasonable shot equity, and good racing chances.

| 3-ply Rollout; |  |  | Eval. |  |
| :--- | :--- | :--- | :--- | :--- |
| $\mathbf{2 2 / 1 8 ( 2 )} 7 / 3(2)$ | -0.272 |  | $\pm .014 ;$ | -0.341 |
| $22 / 18(2)$ | $13 / 97 / 3$ | $-0.306(-0.034)$ | $\pm .011 ;$ | -0.322 | With his last two 4's he makes his 3 point. Although there's some argument for a more flexible play, I like Davis's move.

Snowie's evaluation prefers the more flexible 22/18(2) 13/9 $7 / 3$. However, the difference in flexibility between that play and Davis's is small. The three checkers on the midpoint give Davis plenty of flexibility because he's willing to give up the midpoint.

Making the 3 is better tactically. It takes advantage of O'Laughlin's immediate 61, which leaves a direct shot. If O'Laughlin had no blot numbers, I would prefer Snowie's move. But with any chance for O'Laughlin to leave a shot, improving the inner board is logical and seems necessary. The rollout reverses the evaluation in favor of Davis's play.

Snowie's evaluations are often wrong in similar positions, and I think it's wrong about Position 7.
6. $\qquad$ 22: ?


## Position 8.

6. $\qquad$
O'Laughlin clears the midpoint with the first three 2 's. Contact is no longer a big factor. With his last 2, O'Laughlin can improve his inside distribution. He can even afford to break a point if he thinks he should spread out his checkers. Snowie's evaluation strongly favors filling a gap, either with $5 / 3$ or $4 / 2$. The human view is different; very few people would weaken the 5 point. It's useful to unstack the 6 point and reinforce the 4 . Bots typically overvalue inside spread-out during the bearin.

Few humans would consider $4 / 2$. Weakening the 4 point looks bad and comes out worse in the rollout. However, I admit there's a chance $5 / 3$ is better than $6 / 4$. O'Laughlin will reinforce his weakened 5 as he bears in. According to the rollout, the difference between O'Laughlin's human play and Snowie's botlike diversification is small.

O'Laughlin: I think $5 / 3$ is probably right. I make those kinds of break-to-slot plays now much more often than I did back then.

Davis: That's interesting. I would have made Ed's play, but after 13/11(3) 5/3 you do have three checkers on the 11 point bearing in on the 5 point. It's probably very close.
7. 66: ?


EO: 109
Needs 11

64

MD: 119
Needs 11

Position 9.
7. 66: $18 / 6(2)$

Now Davis takes the lead in the race and breaks contact completely. For the fourth 6 Snowie likes 13/7, but Davis prefers $12 / 6$. The 6 point is a very attractive destination for checkers on the 12. In general, bots undervalue crossovers to the 6 during racing bearins.

| Evaluation |  |  |
| :--- | :--- | :--- |
| $18 / 618 / 1213 / 7$ | +0.485 |  |
| $18 / 12(2) 13 / 7(2)$ | +0.467 | $(-0.018)$ |
| $18 / 6(2)$ | $\mathbf{+ 0 . 4 5 9}$ | $\mathbf{( - 0 . 0 2 6 )}$ |

Whatever the correct move, I'm sure the difference is tiny. A second checker on the 7 gives more diversification, which is better for filling the annoying gap on the 4 . That should swing the decision in favor of Snowie's preference.
7.
8.

43: $10 / 68 / 5$


EO: 102
Needs 11

64

MD: 95
Needs 11

## Position 10: Black on roll.

Should he double to 2? Can White take?

Davis is ahead by seven pips, which is less than $8 \%$ of his count. In long races such as this one, the $8-9-12$ Rule is useful. That rule says that in a money game or normal match situation, you must double with a lead of $8 \%$ of your count, redouble with a lead of $9 \%$, and pass at a deficit of $12 \%$ of the opponent's count. The 8-9-12 Rule mandates that Davis hold the cube here, and that's what he does.

| Evaluation |  |  |  |
| :---: | :---: | :---: | :---: |
| No double | +0. 565 |  |  |
| Double, take | +0.549 | (-0.016) |  |
| Double, pass | +1.000 | (+0.435) |  |
| Wbg Wg W | L | Lg | Lbg |
| $00.0 \quad 00.0 \quad 68.7$ | 31.3 | 00.0 | 00.0 |
| Cubeless equity: | +0.374 |  |  |

Another formula useful in long races, " $10 \%$ plus-or-minus 2 ," predicts no double. According to that formula, the minimum lead necessary to double from the center is two less than $10 \%$ of your pip count. (With one less, you can redouble; two pips more than $110 \%$ of your opponent's count is the borderline for taking or passing.) In this position, Davis would need a 7.5-pip lead to double, so he's half a pip shy of an initial cube.
8. 61: ?


Position 11.
8. 61: $13 / 713 / 12$

Though $13 / 6$ is too inflexible, either Snowie's $13 / 75 / 4$ or Davis's $13 / 713 / 12$ is fine with me. Davis will probably be able to fill the 4 point at his leisure. However, $5 / 4$ is a logical approach to the problem of the 4 gap. After Davis's play, the gap will probably fill fairly nicely, but it's good to start filling with

| Evaluation |  |  |
| :--- | :--- | :--- |
| $13 / 75 / 4$ | +0.539 |  |
| $13 / 713 / 12$ | +0.534 | $(-0.005)$ |
| $13 / 6$ | +0.529 | $(-0.010)$ | a number that does so directly.

8. 



31: ?


Position 12.
8. -----

31: $8 / 511 / 10$

All of the listed moves are fine. 11/7 feels right to me-though it doesn't cross over, it wastes no bearin pips and stays flexiblebut I don't know what's best. Again, I doubt the difference between Snowie's play and O'Laughlin's is as big as Snowie thinks.

| Evaluation |  |  |
| :--- | :--- | :--- |
| $11 / 7$ | -0.850 |  |
| $11 / 84 / 3$ | -0.853 | $(-0.003)$ |
| $6 / 311 / 10$ | -0.854 | $(-0.004)$ |
| $8 / 54 / 3$ | -0.862 | $(-0.012)$ |
| $8 / 511 / 10$ | -0.870 | $\mathbf{( - 0 . 0 2 0 )}$ |

9. ?


EO: 98 Needs 11

64

MD: 88
Needs 11

Position 13: Black on roll.
Should he double to 2? Can White take?

Davis is now 10 pips ahead and should double. All the standard racing formulas recommend a double and take here. Ahead over $11 \%$ of his count, Davis has a big market-losing threat and the double is mandatory.

O'Laughlin: Malcolm probably missed a double.
Why didn't Davis double? Maybe he just miscounted.

| Evaluation |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Double, take | +0.873 |  |  |  |
| No double | $\mathbf{+ 0 . 7 9 3}$ | $\mathbf{( - 0 . 0 8 0 )}$ |  |  |
| Double, pass | +1.000 | $(+0.127)$ |  |  |
| Wbg $\quad \mathrm{Wg}$ | W | L | Lg | Lbg |
| $00.0 \quad 00.0$ | 75.3 | 24.7 | 00.0 | 00.0 |
| Cubeless equity: | +0.506 |  |  |  | Even the best players miscount once in a long while.

Davis: I missed a double. That's really not like me. I could have miscounted, or I might have noticed that I have one extra crossover. I might have noticed that his distribution is a little bit better. Perhaps those things would argue against a double.

Snowie 4 says this position is less of a double for money than it is at -11 to -11 . But at this score it's clearly a mistake to keep the cube.

The conventional wisdom is that early match scores are like money games. I think that's still a good rule of thumb. According to Snowie's match equity table, this score is a tiny bit different: the recubeless, gammonless take-point of a 2 -cube or a 4 -cube is about $1 / 4 \%$ over the money-game figure of $25 \%$. That would predict slightly quicker doubles at this score than for money. In practice, I don't believe it matters much. In fact, rollouts at the score, and for money, give virtually the same results as the evaluation numbers above.
9. 43: $13 / 97 / 4$

32: $11 / 6$
O'Laughlin crosses over. Maybe Davis has miscounted by 10, and won't double?
10. ?


Position 14: Black on roll.
Should he double to 2? Can White take?
10. Double to 2

Pass

No such luck. Down 12 pips at this count is a cold pass, and O'Laughlin sets up for the next game.

Davis: I guess I missed my market here, though not by much. At the table I thought this was probably a take, and according to Snowie 4's evaluation it is a take for money.

If this position is a money take, a lot of foregoing human work will have to be redone! For example, it's a money pass according to $10 \%$ plus-or-minus 2 : O'Laughlin's count is more than two pips greater than $110 \%$ of Davis's count. Other racing formulas also say to pass for money. Snowie 3.2 rollouts agree, as do rollouts of its successor Snowie 4.

## Lessons: Game 1

1. Making the 2 point with opening 64 is good, not hopeless as had been thought for a long time.
2. What's the best opening 64? The choices are to make the 2 point; to run $24 / 14$; or to split and build, 24/18 13/9. The correct choice depends on the match situation.
a. At gammon-go (GG), for example 2-away to 1-away Crawford, make the 2 point.
b. At gammon-save (GS), for example 1-away to 2-away Crawford, run 24/14.
c. At double match point (DMP), also run 24/14.
d. In a normal situation (for money or early in a match), do what feels right. The split-and-build 24/18 $13 / 9$ is very good if you're the better player; it's most complicated. Complications favor the strong.
3. Against opening 64 making the 2 point, the best game plan is blocking. However, sometimes your rolls will dictate some other plan. For example, with a 65 reply to 64 : $8 / 26 / 2$, the best play is still 24/13, Lover's Leap.
4. 22-point holding-racing games are decent, often strong enough to hold off a double even when the opponent has a clear edge.
5. Snowie 3.2 has some definite weak points when it comes to racing bearins.
6. Study racing formulas. Races occur so often that small viglets of saved equity quickly add up
