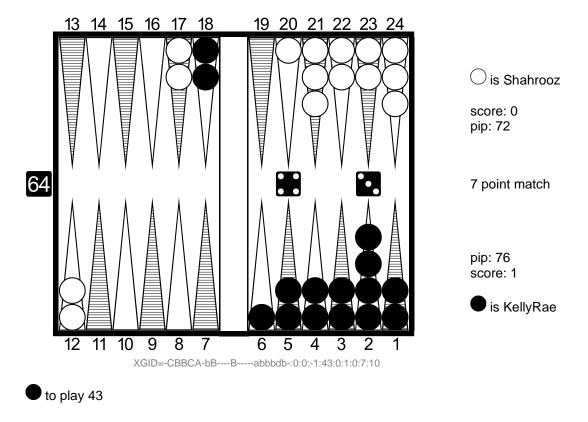
PROBLEM OF THE WEEK #14 - MARCH 15, 2021

THE POSITION:



THE TOURNAMENT AND THE GAME SITUATION:

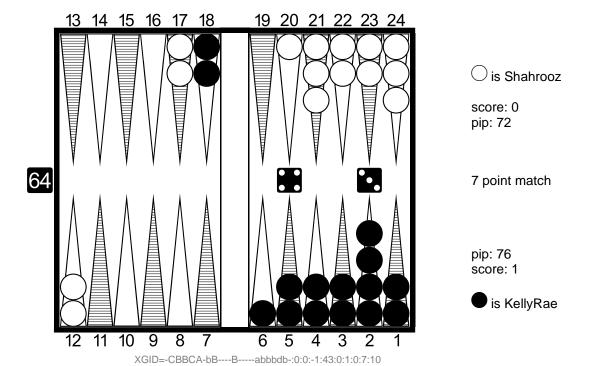
For this week's problem, I've taken another position from one of our weekly "For The Glory" online tournaments. I am playing Shahrooz in a 7-point match, and I'm trailing the match 1-0. I've just rolled 43 – not my best roll.

THE QUESTION:

So, what's my best play here?

SOLUTION

EXTREME GAMMON ROLLOUT RESULTS:



to play 43

1.	Rollout ¹	6/3 5/1	eq: -0.335
	Player:	38.15% (G:0.75% B:0.01%)	Conf.: ± 0.008 (-0.3430.328) - [100.0%]
	Opponent:	61.85% (G:2.19% B:0.04%)	Duration: 53.0 seconds
2.	Rollout ¹	5/2 5/1	eq: -0.361 (-0.025)
	Player:	37.32% (G:0.56% B:0.00%)	Conf.: ± 0.008 (-0.3690.353) - [0.0%]
	Opponent:	62.68% (G:2.11% B:0.04%)	Duration: 48.9 seconds
3.	Rollout ¹	6/2 5/2	eq: -0.386 (-0.050)
	Player:	36.74% (G:0.61% B:0.01%)	Conf.: ± 0.008 (-0.3930.378) - [0.0%]
	Opponent:	63.26% (G:2.29% B:0.04%)	Duration: 45.9 seconds
4.	Rollout ¹	18/11	eq: -0.392 (-0.057)
	Player:	35.97% (G:3.18% B:0.07%)	Conf.: ± 0.006 (-0.3980.386) - [0.0%]
	Opponent:	64.03% (G:1.93% B:0.03%)	Duration: 39.8 seconds
5.	Rollout ¹	6/2 4/1	eq: -0.410 (-0.074)
	Player:	36.03% (G:0.64% B:0.01%)	Conf.: ± 0.008 (-0.4180.402) - [0.0%]
	Opponent:	63.97% (G:2.61% B:0.06%)	Duration: 48.1 seconds
6.	Rollout ¹	18/15 18/14	eq: -0.515 (-0.179)
	Player:	34.26% (G:3.22% B:0.10%)	Conf.: ± 0.010 (-0.5240.505) - [0.0%]
		65.74% (G:7.00% B:0.15%)	Duration: 29.4 seconds
¹ 1296 Games rolled with Variance Reduction.			
Moves: 3-ply, cube decisions: XG Roller			

www.eXtremeGammon.com Version: 2.19.211.pre-release, MET: Kazaross XG2

ANALYSIS:

In today's problem position, Black is confronted with a choice as to whether to keep his rear anchor while continuing to crunch his home board, or to break it and make a run for home, while leaving a blot behind on the 18-point – a "stay or run" problem. Problems like this one come up all the time, and finding the correct play can be extremely difficult. A decision to hold the anchor will provide Black with immediate safety, but at

the cost of additional crunching, weakening his front position. A decision to break the anchor will leave Black with a blot on the defensive bar-point, subject to an immediate double-direct-shot.

Let's consider the main relevant factors that offer guidance as to whether it's best to stay or run in this type of position:

- The Race. As is the case in many types of positions, the race is also a key factor when considering whether to break an anchor. If you are ahead in the race, you should be more inclined to make a run for it, but if you are behind in the race, it will often be preferable to hold onto the anchor in order to maintain maximum contact, because you'll likely need to hit a shot to win.
 - o In this position, the race is essentially even (Black is down by four pips, but on roll). While "staying" and burying checkers will not be good for Black's racing chances, neither will getting hit. On the whole, it seems that this factor, in and of itself, won't be a major consideration in the decision as to whether to "stay or run" on this turn. We'll need to look to other factors for guidance
- **Flexibility and Timing**. If your position is flexible and you figure to be able to make relatively safe moves for several turns, that favors keeping the anchor when this is the case, you expect to have some time to roll a lucky set of doubles that will allow you to clear the anchor at no risk. When timing is short, though, you can expect to be forced off the anchor soon anyway, so it might be best to take your chances now if things figure to get worse for you in the near future.
 - o Here, Black is running short of time. His front board is already starting to crunch, and as soon as he rolls a six (other than 66 or 61), he'll be forced to break his anchor. If he doesn't break his anchor now, it is very likely that he'll be forced to break the anchor real soon anyway (and likely on his next roll). Additionally, White has a number of rolls that will allow him to make his 5-point, giving him a five-point home board, which could leave Black in an even more precarious state on his next roll. So far, these considerations seem to favor making a run for it now. On the other hand, if Black runs now, he'll be subject to an immediate double-shot; but if he instead elects to wait until his next turn, his outlook for making a run for home might improve – note that White also has a timing problem of his own, since his front board is crunched and he'll need to clear the two stripped points in his outfield on his 8-point and midpoint. In fact, if White rolls a five or a six on his next roll, he'll be forced to break one of his outfield points, removing some of the pressure on Black's own bar-point anchor - rolls of 51 and 61 even force White to leave a shot of his own. All in all, these factors point in different directions, making an assessment of these particular positional considerations somewhat difficult and unclear in this case, but overall, it would seem that it's likely better for Black to wait for his next turn and hope that either the dice Gods favor him with a better roll or that White's position becomes a bit less threatening.
- **Opponent's Board Strength**. The strength of your opponent's board is also an important consideration. Leaving an anchor and exposing a blot can leave you subject to an attack by your opponent, so a strong board for your opponent favors playing safe and keeping the anchor.
 - White has a four-point board with a blot on his 5-point, which is strong, but Black can expect to be able to reenter relatively quickly if he's hit. On the other hand, the race is very close, and getting hit will be costly for Black's racing chances; in addition, White's hit-and-cover rolls are very strong. Again, we have conflicting factors pointing in different directions, making for a tough overall assessment of how best to weigh the importance of these particular factors. Overall, I'd conclude that these factors weigh slightly in favor of staying put.

- Tactical Aspects of the Position Loose Blots. If your opponent has loose blots lying around, particularly in his inner board, this could provide you with a justification to make a run for it now. If you get hit, you'll likely have return shots from the bar, allowing you to exploit the short-term tactical weakness of your opponent's position.
 - Ohite does have a blot on his 5-point, so this factor slightly favors making a run for home. On the other hand, White has no other blots, and he may well be able to cover or lift the blot on his 5-point, so signals are again somewhat mixed here, and we definitely need to carefully weigh the other features of the position for additional guidance.
- Safety Risks Associated with Running for Home. You must always take into consideration the amount of risk (especially immediate risk) that you entail whenever you elect to break an anchor.
 - This factor is the one that actually dominates the analysis of this position. Running for home and leaving a blot on the defensive bar-point leaves Black very vulnerable. Simply put, if Black tries to make a run for home now, White is left with just way too many good numbers on his next turn:
 - 63, 62, 33, 31, 22, 21 and 11 (11 rolls) allow White to hit-and-cover.
 - 64, 61 and 41 (6 rolls) allow White to hit-and-lift the blot.
 - 65, 51 and 42 (6 rolls) allow White to hit, although he will be leaving Black with a direct return shot from the bar at the blot on White's 5-point (Black can expect to hit back only about 1/3 of the time, though).
 - 66 (1 roll) is a strong racing roll that is partly blocked if Black maintains the anchor.
 - Notice that 55 and 44 (2 rolls) are also strong racing rolls for White, but they are strong whether Black retains the anchor or not.
 - Note particularly that the eleven hit-and cover rolls are very bad for Black and that there is also a fairly large equity swing in comparing the merits of the two plays ("stay" or "run") on White's rolls of 66 and 61. In the first case (66), as noted above, keeping the anchor partly blocks White's 66 roll; in the second case (61), keeping the anchor forces White to leave a blot of his own, rather than hit Black's blot while lifting his own with 13/7* 5/4.

Having weighed the relevant factors that should be taken into account in evaluating the "stay or run" question posed by this problem position, it is clear that it is best for Black to stay put on the anchor. Of the choices of the plays that "stay," 6/3 5/1 gets the nod because it gives Black the best inner-board distribution for his bear-off, and this will be important in those variations where the race becomes the decisive factor. Other reasonable plays that also "stay" are somewhat close in merit, though.

BEST PLAY:

Black's best play in this position is to hold the anchor, and play **6/3 5/1**. To run with 18/11 would be a mistake. To run with 18/15 18/14, leaving two blots rather than one, would be a fairly large blunder.

EPILOGUE

As it turns out, I actually played 18/11, attempting to run for home. I feared that my time was running out and I had to take a chance and make a run for it while White's board was less than stellar and had a blot in it. As noted above, the risk was simply too great. As it turns out, I was promptly and properly punished – Black rolled 62, one of his hit-and-cover rolls; I followed with 44, dancing; and then came the cube – double and a pass, Game Over. Well that certainly sucked!!

REFERENCES

I list below some backgammon books that contain checker play problems. For each, the reference is directed to specific problems contained in the book that involve the question of whether to "break anchor." In each case, the author includes a discussion of the considerations that are involved in making this decision. Overall, the quality of the analysis and discussion is quite good.

Olson, Marc Brockmann, Backgammon: Pure Strategy, 2017, pp. 237-242, 247-250.

Robertie, Bill, *501 Essential Backgammon Problems*, Cardozo Publishing, 3rd Ed., 2017, Chapter 15: Breaking Anchor, pp. 217-220.

Robertie, Bill, *Modern Backgammon*, The Gammon Press, 2001, pp. 96-106.

Woolsey, Kit, and Heinrich, Hal, *New Ideas in Backgammon*, The Gammon Press, 1996, Chapter 2: Anchors Aweigh, pp. 47-82.