

# PROBLEM OF THE WEEK #19 – APRIL 20, 2021

## THE POSITION:

○ is Coolrey  
score: 4  
pip: 115

11 point match

pip: 124  
score: 10

● is Jeremy Ly

2

XGID=--ACBaD-----Cab-c-dbBb---:1:1:1:43:10:4:0:11:10

● to play 43

## THE TOURNAMENT AND THE PLAYERS:

For this week's problem, we're covering a problem submitted by our rising young star, Jeremy Ly. This position comes from an online match that he played against the legendary Ray "Coolrey" Foggerland. Jeremy is playing the Black checkers in this week's problem.

## THE GAME SITUATION:

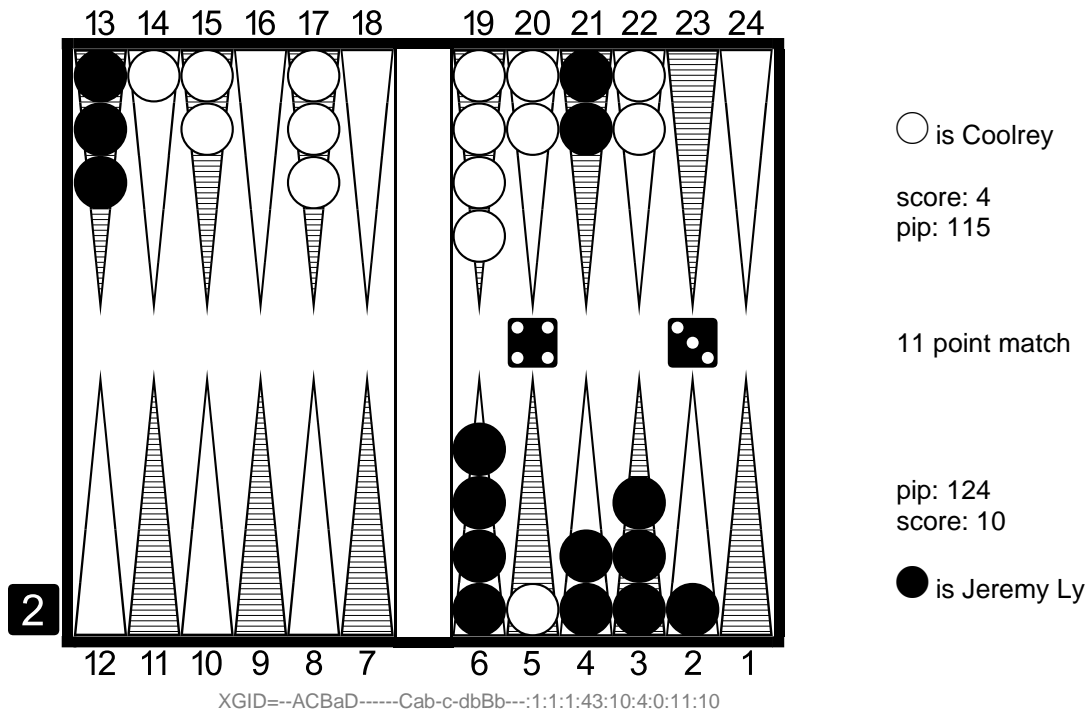
The players are in the middle of an 11-point match, with Jeremy leading 10-4 and holding a cube on 2. Jeremy is on roll, and he has just rolled 43, which affords him a number of possible plays. He takes his time and carefully weighs his options, aiming to find the best play.

## THE QUESTION:

So, what should he do here?

# SOLUTION

## Extreme Gammon Rollout Results:



● to play 43

1.	Rollout <sup>1</sup>	13/6	eq: -0.370
	Player:	35.10% (G:4.29% B:0.17%)	Conf.: ± 0.004 (-0.374...-0.367) - [100.0%]
	Opponent:	64.90% (G:4.95% B:0.17%)	Duration: 1 minute 34 seconds
2.	Rollout <sup>1</sup>	6/3 6/2	eq: -0.391 (-0.021)
	Player:	35.59% (G:3.79% B:0.04%)	Conf.: ± 0.004 (-0.395...-0.387) - [0.0%]
	Opponent:	64.41% (G:7.10% B:0.22%)	Duration: 1 minute 31 seconds
3.	Rollout <sup>1</sup>	13/10 6/2	eq: -0.399 (-0.029)
	Player:	34.83% (G:5.63% B:0.25%)	Conf.: ± 0.004 (-0.403...-0.395) - [0.0%]
	Opponent:	65.17% (G:6.62% B:0.20%)	Duration: 1 minute 46 seconds
4.	Rollout <sup>1</sup>	6/2 4/1	eq: -0.418 (-0.048)
	Player:	33.95% (G:3.49% B:0.03%)	Conf.: ± 0.004 (-0.422...-0.414) - [0.0%]
	Opponent:	66.05% (G:6.66% B:0.23%)	Duration: 1 minute 26 seconds
5.	Rollout <sup>1</sup>	21/14*	eq: -0.515 (-0.145)
	Player:	43.04% (G:14.42% B:0.82%)	Conf.: ± 0.006 (-0.521...-0.509) - [0.0%]
	Opponent:	56.96% (G:25.41% B:1.16%)	Duration: 2 minutes 07 seconds

<sup>1</sup> 1296 Games rolled with Variance Reduction.  
Moves: 3-ply, cube decisions: XG Roller

[www.eXtremeGammon.com](http://www.eXtremeGammon.com) Version: 2.19.211.pre-release, MET: Kazaross XG2

## Analysis:

This week's problem is another "stay or run" problem, with a special twist. In today's problem position, Black must first determine whether he should remain on the 21-point anchor (stay) or break that point and seek to race home (run). If Black elects to run, his best play is clearly 21/14\*, hitting White's blot. As we did in the

case of prior Problems of the Week involving the possibility of breaking an anchor point, we begin by considering the relevant factors that offer guidance as to whether it's best to "stay" or "run":<sup>1</sup>

- **The Race.** Here, Black has a 9-pip racing deficit prior to the roll, but if he hits White's blot, he'll set White back 14 pips, giving him a racing lead of 12 pips, with White needing to reenter from the bar against a three-point board. Given that Black is able to escape while hitting, this factor favors making a run for it. (*Favors "run"*)
- **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 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. Here, Black has three checkers on the midpoint as well as two spares on the 6-point. As such, there is no immediate need for Black to break the anchor. This set of circumstances favors remaining on the anchor. On the other hand, White also has good timing. He has plenty of checkers to play with in the outfield and his position also figures to improve over the next few shakes – he'll likely be able to make some new points, perhaps strengthening his inner board in the process. Since Black has rolled a number that allows him to hit while also making a run for it, he should strongly consider doing so; an opportunity to escape with a hit may not present itself again in the future. Overall, indicators are a bit mixed regarding this factor, but they seem to point slightly in favor of making a run for it now. (*Slightly favors "run"*)
- **Opponent's Board Strength.** Here, White has a three-point board which he'll be able to retain (and possibly improve) over the next few rolls. White also has a lot of checkers in the attacking zone (*i.e.*, he has a combined total of fourteen checkers in his outer and inner boards); as such, he has very good attacking possibilities. If Black gets hit in this position, it will be quite bad for him if he doesn't respond immediately with a good roll. (*Favors "stay"*)
- **Tactical Aspects of the Position – Loose Blots.** Here, Black has rolled an ideal roll with which to make a run for it. With his 43, he can hit White's loose blot in the outfield, placing White on the bar against his own three-point board. While a defensive anchor is usually more of an asset than a liability, when presented with a chance to hit a blot in the outfield, it will usually be correct to break anchor and hit. Hitting both gains ground in the race and begins the process of escaping Black's back checkers to freedom. This factor favors running. (*Favors "run"*)
- **Safety – Risks Associated with Running for Home.** As noted above, if Black gets hit in this position, it will be quite bad for him. While the running play hits a White checker, thus taking away half of White's next roll, Black also has a blot of his own in his inner board on his deuce-point (as well as two others that are created as a result of breaking the defensive anchor on the 21-point). If White enters with a deuce, Black will be in considerable gammon danger unless he rolls well from the bar and remakes his defensive 21-point. Of course, when White fails to return hit from the bar (or better yet, dances), Black will be in very good shape indeed. (*Favors "stay"*)

Looking at the relevant factors that should be taken into account in evaluating the "stay or run" question posed by this problem position, two favor running, two favor staying put and another one slightly favors

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<sup>1</sup> See Problem of the Week #14 and Problem of the Week #15.

<http://www.backgammononlongisland.com/wp-content/uploads/2021/03/Problem14Solution-March15-2021.pdf>.

<http://www.backgammononlongisland.com/wp-content/uploads/2021/03/Problem15Solution-March23-2021.pdf>.

running. Of course, a simple running count of the “score” of the factors is not dispositive. Obviously, it generally won’t be the case that each factor should be given “equal weight” in making a checker play determination in these types of positions (and note also that the factors are, to some extent, interrelated – *e.g.*, a racing lead often comes with reduced flexibility and timing). The factors are merely meant to offer some guidance as to which play is likely best. If all or most of the factors point in the same direction, the prudent course will generally be to follow the direction that is indicated by the factors. In this case, though, the factors are roughly balanced, so we would expect that the merits of the alternative play choices will be relatively close. We need to look deeper and evaluate the relative importance of each of the factors.

In money game play (or at match scores where winning or losing a gammon isn’t especially significant), the benefits of escaping with a hit and gaining a racing lead are more significant than the downside that comes with risking a possible return hit on the blot on the deuce-point, together with White’s relatively strong board and attacking possibilities (and note that White only has 12 rolls that will allow him to hit that blot, although he also does have some additional loose hitting numbers that allow him to hit the blot on his 4-point). In a money game (or in the early stages of a match), it would be correct to make the hitting play, 21/14\*.<sup>2</sup> As noted above, it is often thematic to escape from an anchor with a tempo hit. In fact, if Black didn’t have that loose blot on his deuce-point (*e.g.*, if we were to move Black’s spare checker on the 3-point to his deuce-point, covering the blot and giving Black a strong four-point home board), the safety concerns would become much less significant and the racing benefits of escaping with a hit would be much more pronounced – in that alternative position, 21/14\* would be far and away the best play.

However, in this particular case, we are not evaluating a position from a game that is being played for money or that is being played in the early stages of a match. Black leads 10-4 in a match to 11. At this particular match score, Black gains no value from winning a gammon, while White gains considerably if he is able to do so (in fact, he gains more than he would in money play – see the discussion below regarding Gammon Price). For this problem position (and others like it), we need to throw another factor into the mix in evaluating the relative merits of “staying” as compared to “running.” Specifically:

- **Match Play Considerations.** At the current match score – 10-4 post-Crawford – if Black wins this game (whether a single game or a gammon), Black will win the match. If Black loses a single game, the match score will go to 10-6 in Black’s favor. If Black loses a gammon, the match score will go to 10-8 in Black’s favor. The applicable Match Winning Chances (“MWC”) that Black and White will have at each of these possible match scores are as follows:<sup>3</sup>
  - 11-0 → MWC are 100% for Black, 0% for White
  - 10-6 → MWC are 80.99% for Black, 19.01% for White
  - 10-8 → MWC are 67.74% for Black, 32.26% for White

From Black’s perspective, it doesn’t matter whether or not he wins a gammon; if he wins the game, he wins the match. For White, though, if he wins a gammon, as compared to winning a single game, his match winning chances will increase by 13.25% to 32.26%. By contrast, winning a single game, as compared to losing the game and the match, will still leave him with match winning chances of 19.01%.

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<sup>2</sup> [Annex A](#) contains an Extreme Gammon rollout of the problem position where the game is being played under money game conditions. As you can see, the rollout indicates that hitting is clearly correct, but while the safe play is a mistake, its equity difference does not reach a threshold level that would make it a blunder.

<sup>3</sup> The identified Match Winning Chances come from the Kazaross XG2 Match Equity Table. For those in possession of the eXtreme Gammon® software product, you can obtain these numbers by accessing the Main Menu: Analyze → Match Equity Table.

This translates to a Gammon Price for White of 0.697.<sup>4</sup> This is higher than the usual Gammon Price of 0.5 that you have when you're playing in a money game. So, White's gammon price is higher than normal, meaning that White should play aggressively to try to win a gammon and, correspondingly, it is strongly in Black's best interest to make plays that keep White's chances of winning a gammon to a minimum. Looking at the rollout results, Black loses approximately 5% gammons if he makes the stay put play; by contrast, Black loses approximately 25% gammons after making the anchor-breaking play, 21/14\*. At the current match score, he just doesn't get enough extra single game wins to justify this large of an increase in his gammon losses. Consequently, this factor strongly favors staying put on the anchor and making a safe play. **(Strongly favors "stay")**

It turns out that the consideration of this factor so strongly favors staying put on the anchor that it is determinative as to Black's best play at this particular match score. It overwhelms the other considerations. This is a most interesting result and an example of how the score in a match can impact a checker play decision. Simply put, when you are leading in a match in a "gammon save" type situation, as is the case here, you generally need a much more compelling reason to select a play alternative that will have a large impact on your possible gammon losses (especially since any corresponding increases in your gammon wins are essentially meaningless – any type of win for you will win the match and you get no bonus for any "overage" that you may achieve in the final match score). In the case of the problem position, the advantages of breaking the anchor and hitting White's loose blot on his 11-point aren't sufficient to offset the prospective downside that comes with losing so many additional gammons at this match score.

### **Conclusion and Best Play:**

**The best play is 13/6.** As compared to other possible plays, it doesn't leave a blot and retains the spares on the 6-point (*i.e.*, Black retains flexibility by refusing to bury spare checkers on the low points in his inner board) – this is important as there is still a fair amount of contact in the position, and timing considerations are particularly important. However, several other plays that retain the anchor are also relatively close in merit to the top play, 13/6. Hitting at this particular match score with 21/14\* is a fairly large blunder.

As noted above, though, if this game were being played in a money game or in the early stages of a match, and not in a situation where Black is at a "gammon save" type score in a match, hitting would be correct, although the decision would be much closer than it is here (see the result of the money game rollout in Annex A).

### **EPILOGUE**

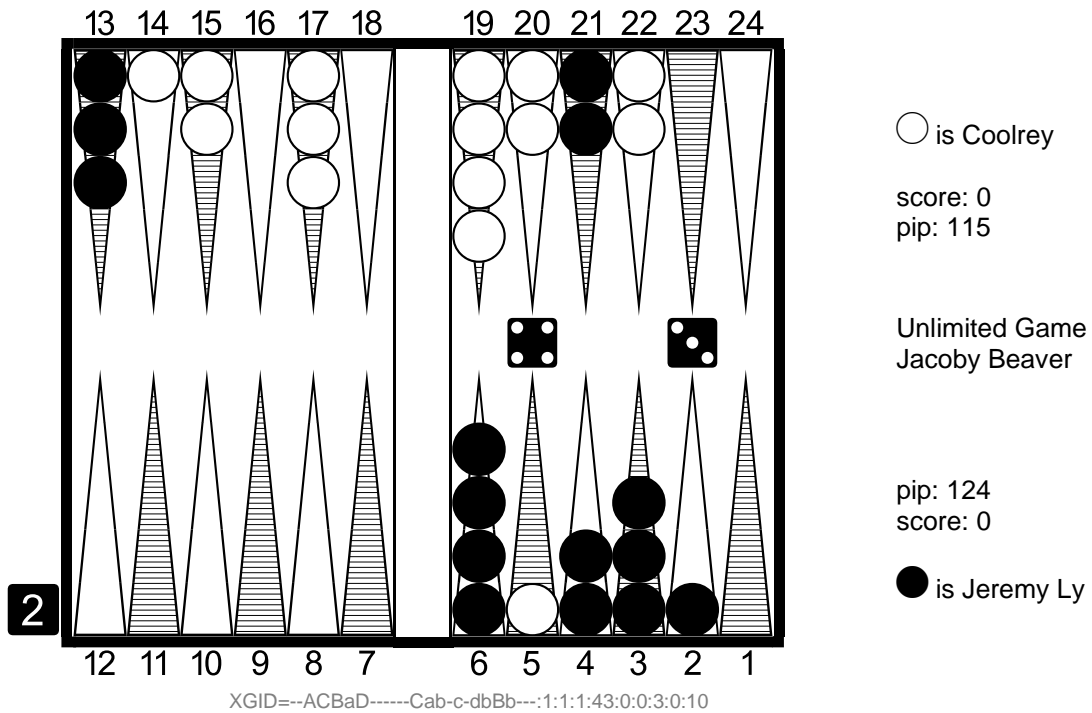
As it turns out, Jeremy made the hitting play. Things didn't turn out so well for him. He proceeded to get gammoned, bringing the match score to 10-8. He then went on to lose the entire match by the score of 11-10, even though he had been ahead earlier on in the 11-point match, 10-1. 😞 A tragic loss for our rising young star against one of Backgammon's Giants. The only upside would seem to be that it provides our group with a valuable lesson – *i.e.*, that the score in a match can sometimes be an important consideration when one makes checker play decisions. I suspect that Jeremy would not take much consolation from this particular factoid, but I nevertheless appreciate his decision to submit the position for analysis as one of our Problems of the Week.

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<sup>4</sup> Gammon Price is generally defined to be (MWC after gammon win – MWC after single game win) / (MWC after single game win – MWC after single game loss). This translates to  $(32.26\% - 19.01\%) / (19.01\% - 0\%) = 0.697$ . Note that in money game play, the gammon price is calculated to be  $(+2 - +1) / (+1 - (-1)) = 0.5$ . For a more comprehensive discussion of the concept of Gammon Price and its practical implications, see Douglas Zare's excellent article on this topic on the Backgammon Galore! website (2001): <https://bkgm.com/articles/Zare/GammonPrice/index.html>.

# ANNEX A

## Extreme Gammon Rollouts (Alternative Money Game Situation):



● to play 43

1.	Rollout <sup>1</sup>	21/14*	eq: -0.127
	Player:	42.40% (G:13.21% B:0.53%)	Conf.: ± 0.007 (-0.134...-0.120) - [100.0%]
	Opponent:	57.60% (G:25.31% B:1.21%)	Duration: 2 minutes 36 seconds
2.	Rollout <sup>1</sup>	13/6	eq: -0.186 (-0.059)
	Player:	35.42% (G:4.17% B:0.08%)	Conf.: ± 0.006 (-0.192...-0.180) - [0.0%]
	Opponent:	64.58% (G:5.89% B:0.26%)	Duration: 1 minute 40 seconds
3.	Rollout <sup>1</sup>	6/3 6/2	eq: -0.204 (-0.077)
	Player:	35.13% (G:3.80% B:0.07%)	Conf.: ± 0.006 (-0.210...-0.198) - [0.0%]
	Opponent:	64.87% (G:6.82% B:0.24%)	Duration: 1 minute 35 seconds
4.	Rollout <sup>1</sup>	13/10 6/2	eq: -0.206 (-0.079)
	Player:	34.52% (G:5.48% B:0.10%)	Conf.: ± 0.007 (-0.213...-0.199) - [0.0%]
	Opponent:	65.48% (G:6.72% B:0.26%)	Duration: 1 minute 56 seconds

<sup>1</sup> 1296 Games rolled with Variance Reduction.  
Moves: 3-ply, cube decisions: XG Roller