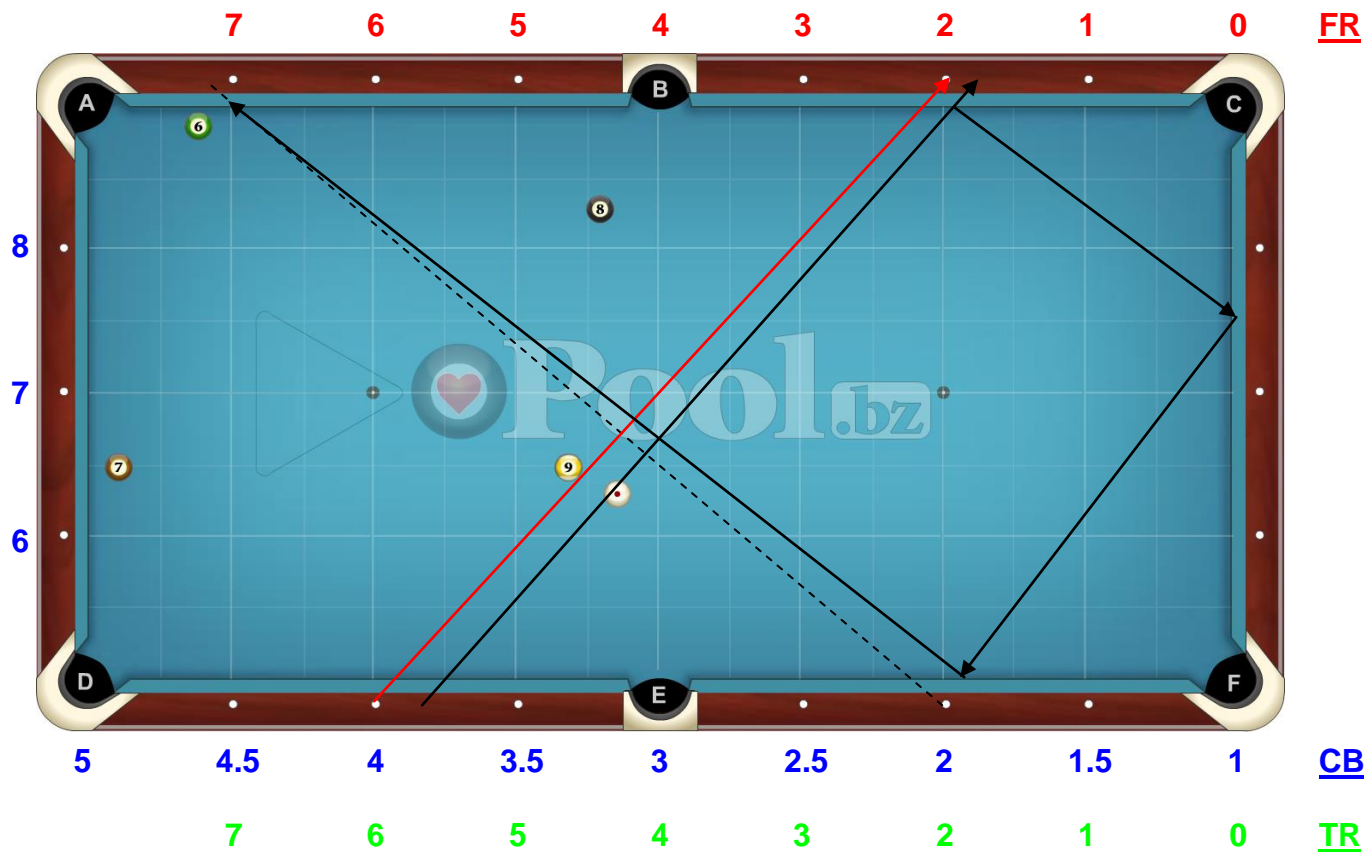


“THE” Diamond System – Corner Five – Part 2

Let's continue where we left off in Part 1. You know the numbers for the cueball (CB), first rail (FR), and third rail (TR). You know the tracks. You know the formula $(CB - TR = FR)$. With this basic knowledge you can do some pretty cool things with the system...



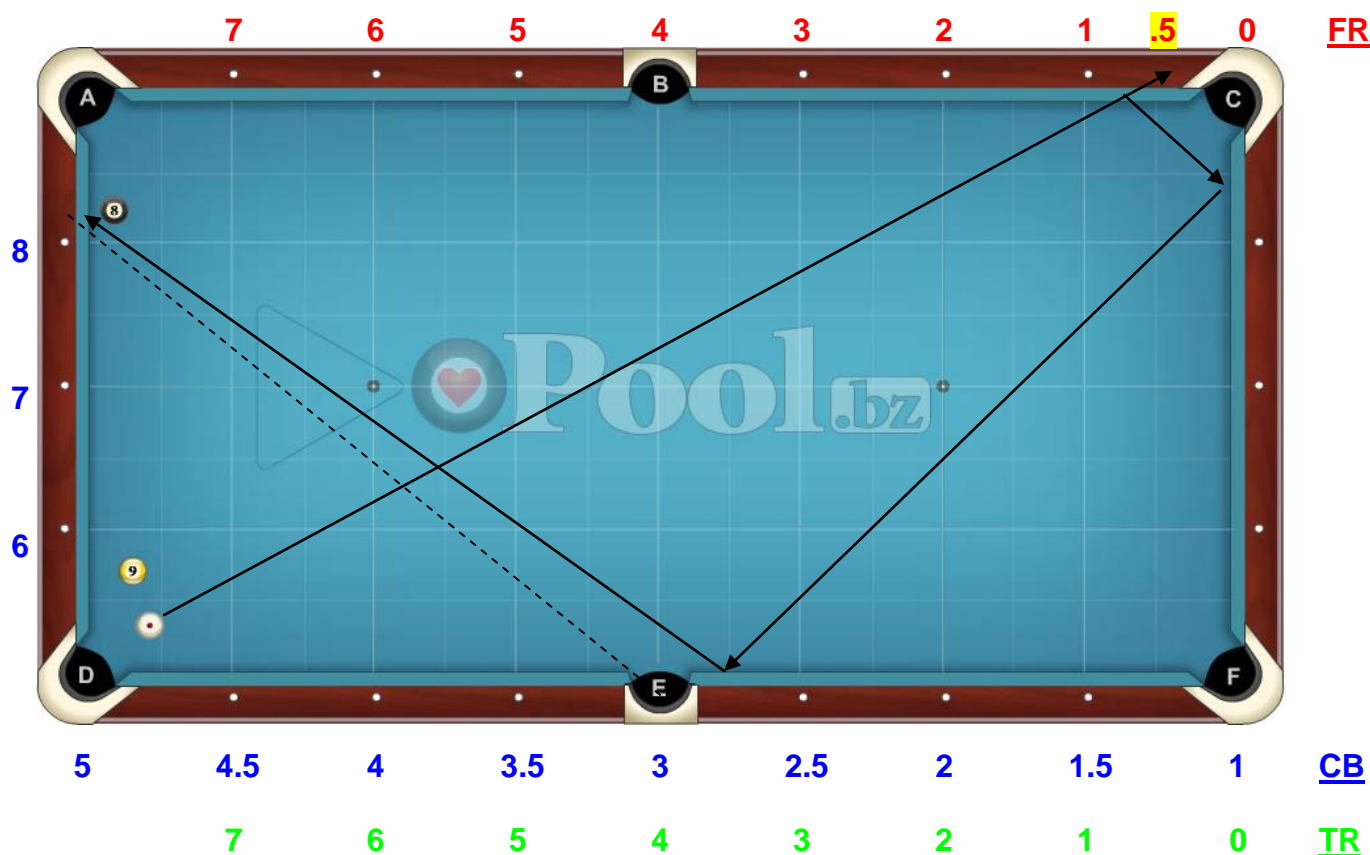
First let's discuss how to determine your cue ball number when you are not near a rail. In the diagram above, the 1 rail kick is blocked by the 8, kicking cross table won't leave enough distance, and by kicking 3 rails I might actually make the 6 ball and get shape on the 7.

So first you need to determine the track line. In this case, the 6 ball is almost perfectly on track 2, which goes down to about 1 diamond away from the corner pocket. If the cue ball were near the bottom long rail, you would just take that number, subtract 2, and determine the first rail aim point.

Since the cue ball is in the middle of the table, you need to find two numbers that differ by 2. You do that by using your cue to help estimate various positions until you find a solution. Start by putting your cue somewhere close; say 4 to 2 as shown above by the red arrow. That's actually pretty close, but we need to adjust just a bit. It looks like the line from 3.8 to 1.8, as shown by the black arrow, is almost right on, and since those numbers differ by 2 that will work perfectly ($3.8 - 1.8 = 2$).

So now that we found our numbers, we simply aim at 1.8 with running english and we will hit the 6 and possibly even make it in the corner. (We will need a slight adjustment as well because of the cue ball position, but we will cover that later). If you find, as in this case, that your object ball is not quite on the track, you can just find the closest track and adjust slightly. In this case, we could either plan for the rail first hit, adjust up slightly (say aim at 1.7 instead of 1.8), or use a bit more spin. This is where experimentation will come into play, and with some practice you will quickly be able to find your track line, estimate cue ball numbers, and adjust slightly for off track position. Hitting a shot like this in a match would take me just a few seconds to plan, although at first it may take you 30 or more.

Notice that the actual path of the cue ball does not follow the track line exactly off of the third rail. Remember the track lines are just to associate fourth rail hit points with third rail diamonds, the actual path will vary based on the speed/spin used and the starting position of the cue ball.



On your typical pool table, starting from the corner (5) and hitting diamond 2 will take you to 3 on the third rail and to the opposite corner. However, I've played on tables that play anywhere from a diamond long to a diamond short. In other words, you would have to hit anywhere from the third diamond to the first diamond on the first rail in order to reach the corner. With some of these tables, you may also be able to make them conform more closely to the traditional numbers by using more or less speed or english instead of adjusting the numbers.

Rather than constantly having to figure out new track lines for each table, I simply shoot my standard reference shot, corner to corner, to see what speed/spin I need to use and what diamond takes me to the corner. Let's say for reference that my table plays shorter than normal, and I need to hit through diamond 1.5 using the same speed and running english to reach the corner. This is a ½ diamond adjustment down from the normal target of 2.

So in the example above, I want to hit the 8 ball three rails, doing so gives me the best chance of making the ball vs. just hitting it. It happens to lie close to track 4 as shown above by the dashed line. Normally, we would aim through diamond 1 to make this (5 - 4 = 1). However, our table plays ½ diamond short so we need to make an adjustment. In this case, we just find our normal number (1) and apply our table adjustment (minus ½ diamond) to get our new aim point of .5.

This simple table adjustment can always be quickly figured out using the corner to corner test shot and should be part of your warm up on new equipment. Whatever adjustment you determine is required, either in aim point or with speed/spin, can be used from most positions on the table easily by just adding or subtracting that same adjustment number to/from the standard system number in combination with any speed or spin differences needed as well.



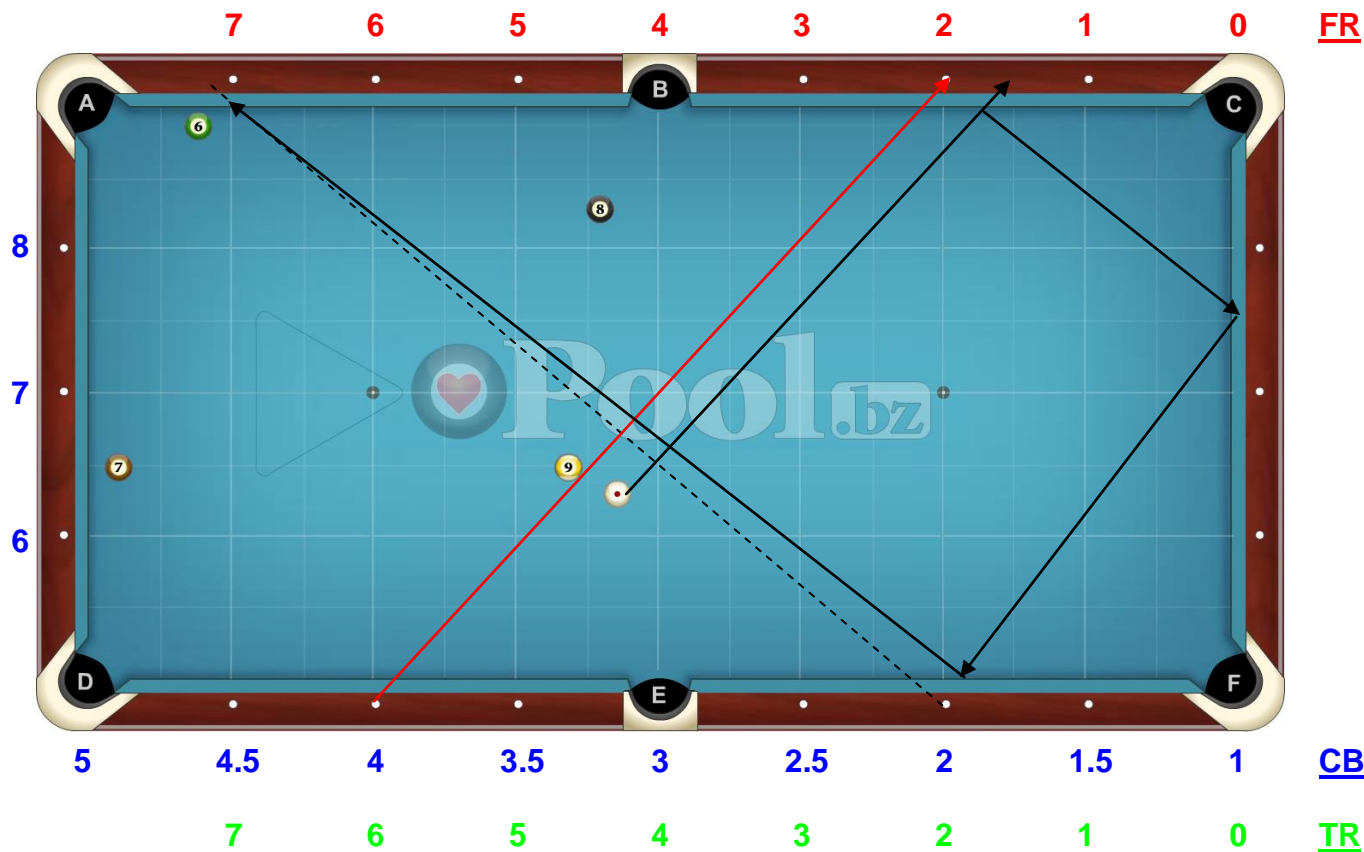
When kicking at a ball lying on the third rail, the table adjustment is typically not necessary. I've found on most tables that the angle into the third rail is fairly standard and the angle from the third to the fourth rail is where the larger difference is seen. You may find though that if any large speed or spin adjustments are necessary those may still be needed when kicking into the third rail.

Kicking to a spot on the third rail would seem easier than kicking to the fourth rail – minimal if any adjustments are needed, and no track lines to memorize, just simple subtraction to find the first rail target. But there is one nuance that gets people all the time.

When you determine your third rail target, be sure to look at the diamond the cue ball will be traveling through, not at. In the example above, the 5 ball is opposite diamond 3, so assuming a normal playing table many people would just see the cue ball is at 5 and figure $5 - 3 = 2$ and aim through diamond 2 to make the hit. The problem is that the cue ball path will not necessarily hit at diamond 3 but more into diamond 3, as shown by the dashed lines above. This could cause either a complete miss, or if you are lucky you might barely hit the ball.

To compensate for this, you can do a few things. First, you can estimate the diamond the cue ball will be aiming into when approaching the third rail – in this case, probably 3.5 – and figure the line based on that number. Another approach would be to use more spin so the cue ball tracks a little longer. I don't use this approach much because the effects of the spin can vary across tables.

The approach I use the most is to simply subtract an extra $\frac{1}{2}$ diamond from my final number. So if I need to hit a ball opposite diamond 3, instead of aiming through diamond 2 on the first rail I'll aim through 1.5 instead. This works from most positions on the table and is a quick adjustment to make. Again, I keep saying this, but keep in mind that every table will play a little different, so pay attention to the spin and return angles on your table to understand the adjustments needed.



Let's go back to our first example to discuss some important adjustments. I first saw these adjustments in Robert Byrne's excellent Standard Book of Pool and Billiards and found them to be pretty useful. I learned a ton from his series of books and highly recommend them.

As you can imagine, when the cue ball originates from somewhere other than the corner, the angles it takes around the table will vary. Hitting from the corner (5), with a nice standard roughly 45 degree angle into the first cushion, will be different than coming from 7 or 8 with a much shallower angle or from 2 or 3 with a much sharper angle.

To compensate for these effects some allowances must be made based on the cue ball origin. You need to adjust based on the percentage of the table you are away from the corner. So if the cue ball is starting from 3, you are half way up the table, so you need to subtract an extra $\frac{1}{2}$ diamond from your calculated first rail target. If you are starting from 8, you are $\frac{3}{4}$ away from the corner on the plus side, so you need to add $\frac{3}{4}$ diamond to your target. These adjustments will help compensate for the different approach angles into the first rail, and again could differ somewhat from table to table.

So back to our original example. We determined that to hit diamond 2 on the third rail the numbers 3.8 and 1.8 worked with our cue ball position. But to really make this work, we need to adjust slightly because of the cue ball position. Since we are roughly $\frac{1}{4}$ of a table away from the corner, we should adjust by $\frac{1}{4}$ diamond, making our final target 1.55.

It's hard enough to estimate tenths of a diamond, just remember that on a 9' table there are 12.5 inches between diamonds, so just a bit more than an inch per tenth of a diamond. A .25 diamond adjustment is about 3 inches, so you can either aim a smidgen above 1.5 or just move down 3 inches from your original point of 1.8, up to you how you best visualize it. At first this will all take a while to figure out, but it does come very quickly with practice.

One last thing to mention is using spin to alter the natural path. In the event there is a ball in the way of your calculated path, you can try adding $\frac{1}{2}$ diamond to your number and use an extra tip or so of spin to compensate. So if your calculated point is say 2.5, just try aiming at 3 and use 2 or 2 $\frac{1}{2}$ tips of spin instead of the normal 1 tip for running english. You can also try the reverse and aim higher and try and shorten up the angle with speed or less spin. Again, practice, practice, practice.

That's all for now with the Corner Five system. It's a very powerful and versatile system, and with just a little time at the table you'll be calculating the routes and tracks in no time.