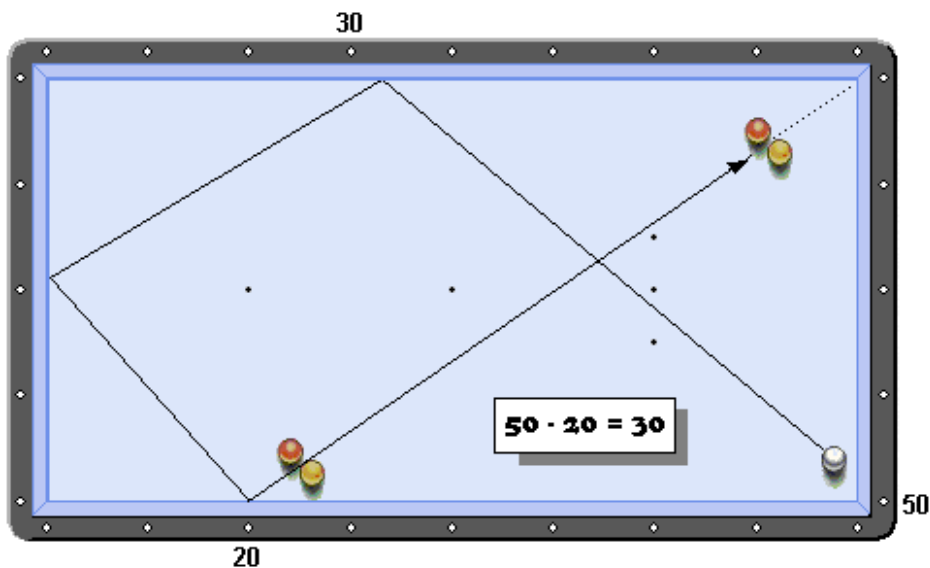


# Diamond System Compensations

## Execution characteristics

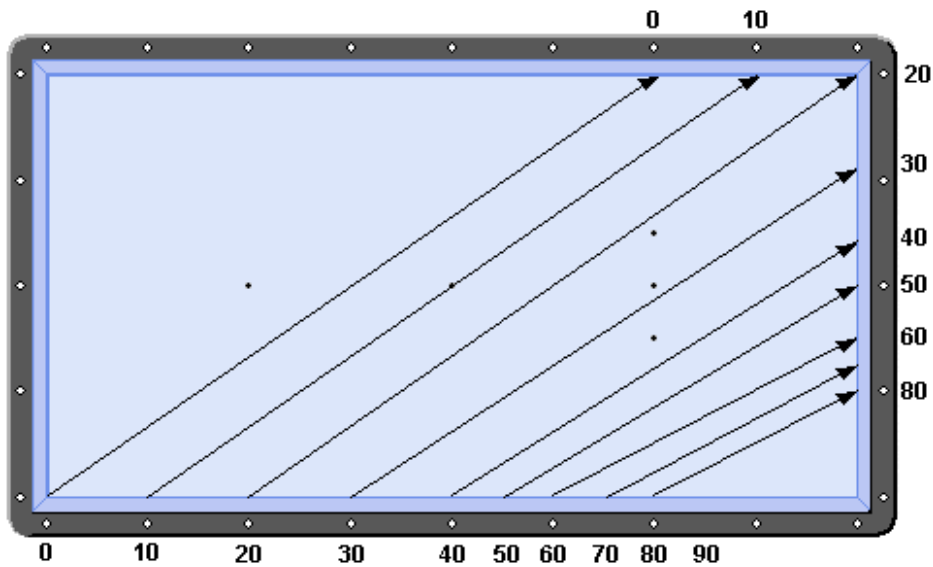
<b>Cue ball hit:</b>	-
<b>Height :</b>	On the equator
<b>Spin :</b>	Maximum spin
<b>Cue position :</b>	As level as possible
<b>Aim :</b>	Always through the rail
<b>Commentary :</b>	Study this part only when you master the diamond system

Last month, we saw the figures pertaining to the system. Do you know them by heart? Good, because it's essential. But while applying the formula and contacting the point of aim calculated, you do not always accomplish the shot successfully.



Honest people will say they played the shot badly. Some will say the rails is short... or wide... that you need a certain margin of errors.. that they're simply unlucky...etc.

In fact, this means that the finishing lines, as we have learned them, are efficient only when the starting point is close to the 50 point (corner)



This month we will learn that the formula becomes:

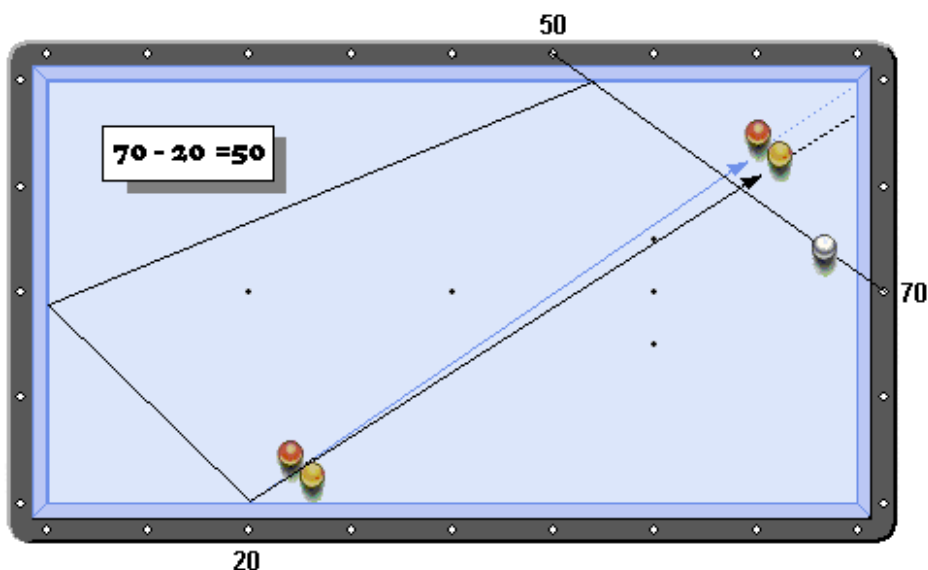
$$\text{Aim} = \text{Start} - \text{Finish} + \text{Compensation}$$

In order to apply the compensations correctly, it's important to understand why you should compensate and in which case.

**Notice: the compensations we will apply are totally independent of the table's quality. They are linked to the geometry of the shot according to the position of the starting ball. If the rails are "short" or "wide" then you must adjust accordingly.**

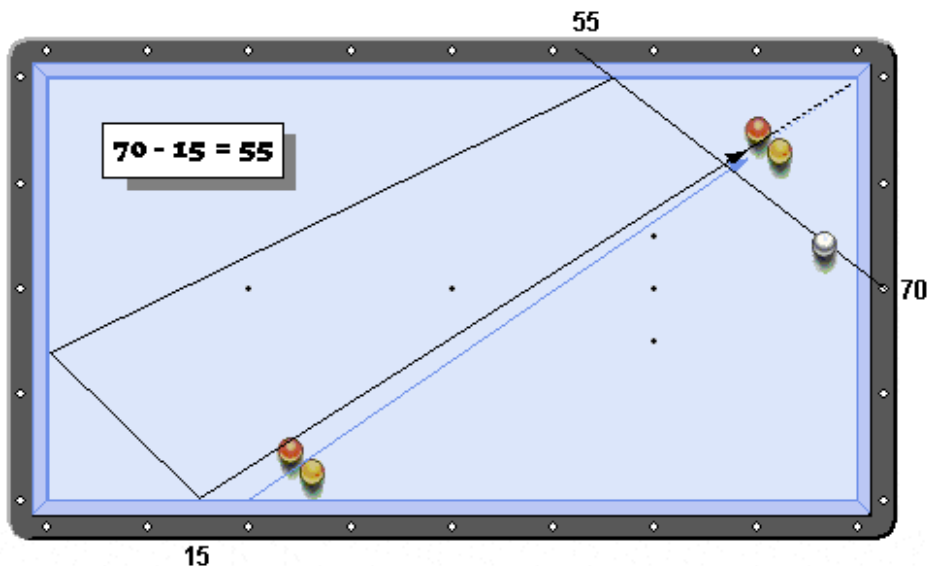
### Short rail Start

For the diagram below, the calculus for a finish in 20 and a start in 70 gives us a point of aim through the rail at point 50. The blue arrow indicates the theoretical path of your ball! The black arrow, the real path!!!



It's important to note that near the 3rd rail, the system is still right. The more your ball tends toward the 4th rail, the more it deviates from its path.

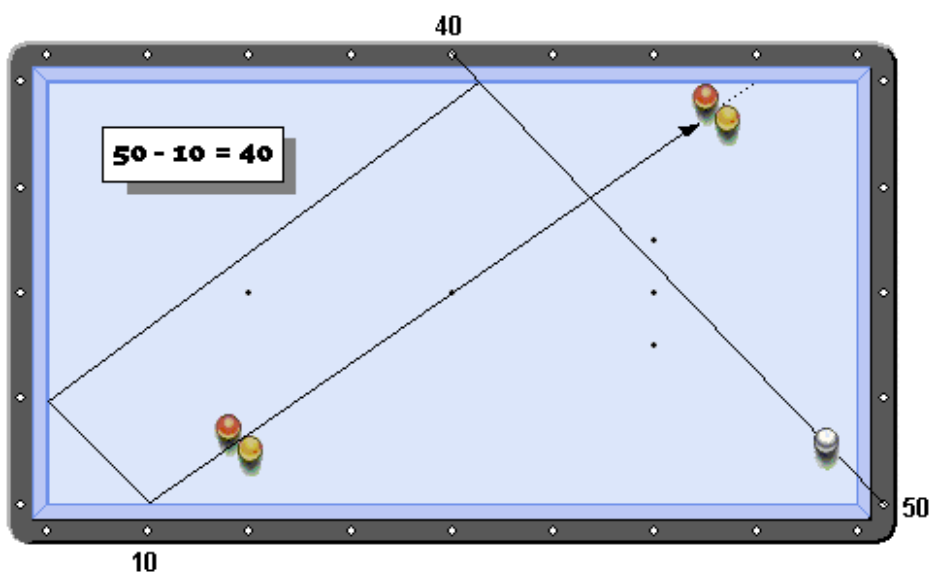
In order to reach the corner and make the point, experience shows us that one must aim point 55 (50+5). Only,  $70-55=15$ ...



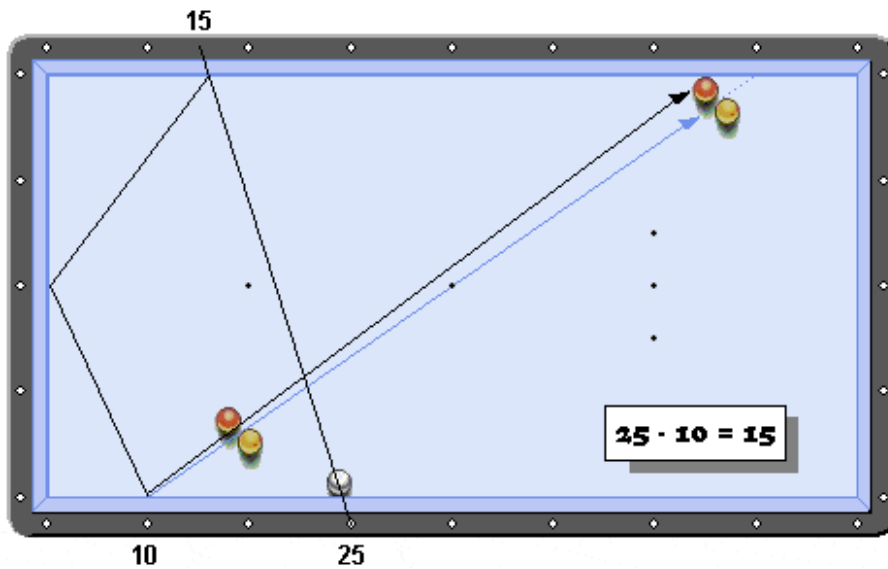
...The comparison between the two arrows shows us that if the compensation allows us to make the point near the 4th rail, it is lost near the 3rd rail.

## Long rail Start

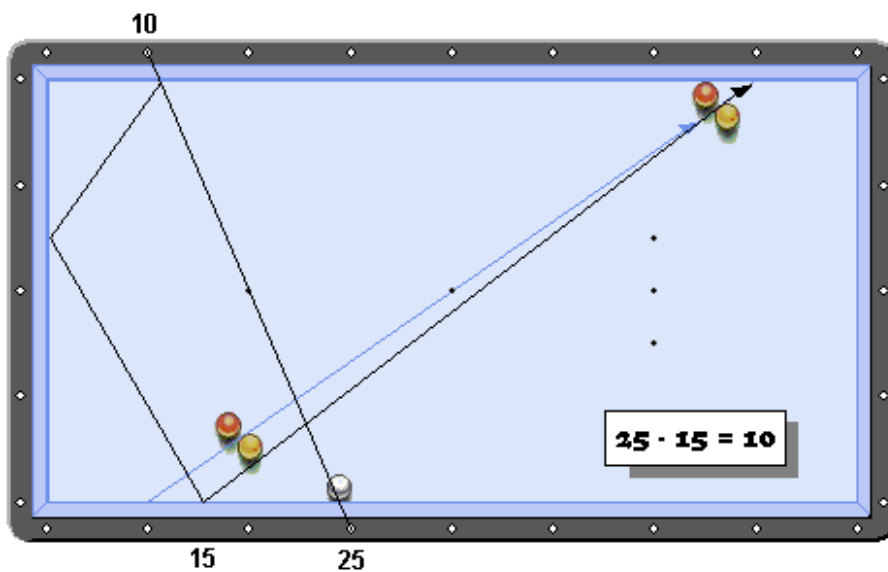
Our knowledge tells us that to reach point 10 with a point 50 start, the point of aim must 40. This point is valid for balls that are near the 3rd or the 4th rail.



In the diagram below, the calculus for a finish in 10 and a start in 25 gives us the aiming point through the rail at point 15. We can see once again the real path moves away from the theoretical path the more we get closer to the 4th rail.



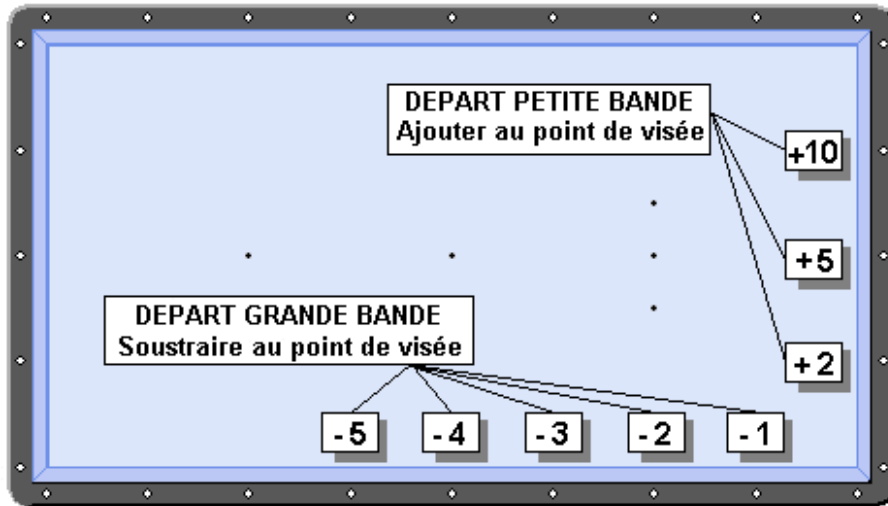
To make the point when the balls are close to the 4th rail, experience will give us the point of aim 10. Which means a finishing point in 15 on the 3rd rail (25-10).



**Notice:** in the Diamond System, we had indicated to aim on the rail when starting on the long rail. In the compensation system, this notion is not valid, aiming being always done through the rail.

## Applying compensations

First, we have to determine the theoretical value of the compensation.



For a long rail start, the value to subtract to the point of aim is the same as the number of diamond between the corner (50) and your ball. If, for example, your ball is located in 30 (4th diamond starting from the corner), the value to subtract is 4.

Start value	Compensation
50	0
45	-1
40	-2
35	-3
30	-4
25	-5

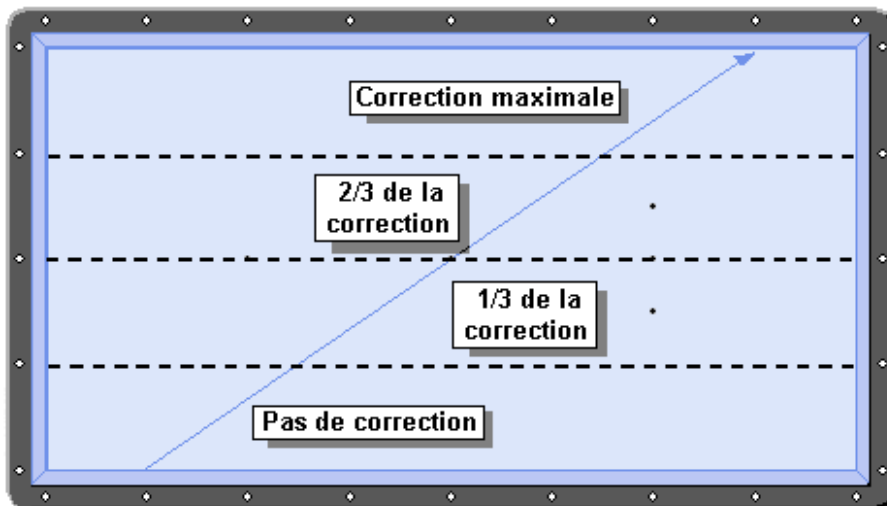
For short rail start, you must **add** 2 to the point of aim for a first diamond start (60), 5 for a second diamond start (70) and 10 for a third diamond start (90).

Start value	Compensation
55	+1
60	+2
65	+3.5
70	+5
80	+7
90	+10

Second, you must adjust the compensation value according to the last ball's position.

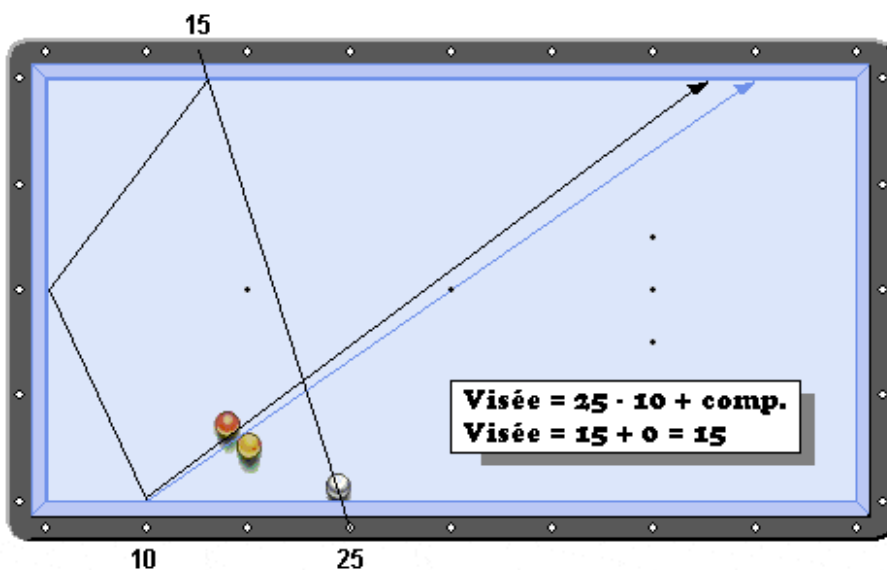
Indeed, we saw previously that when the last ball is close to the 3rd rail, that no compensation is necessary. In fact, the closer the point of contact is to the 4th rail, the more you'll need to compensate.

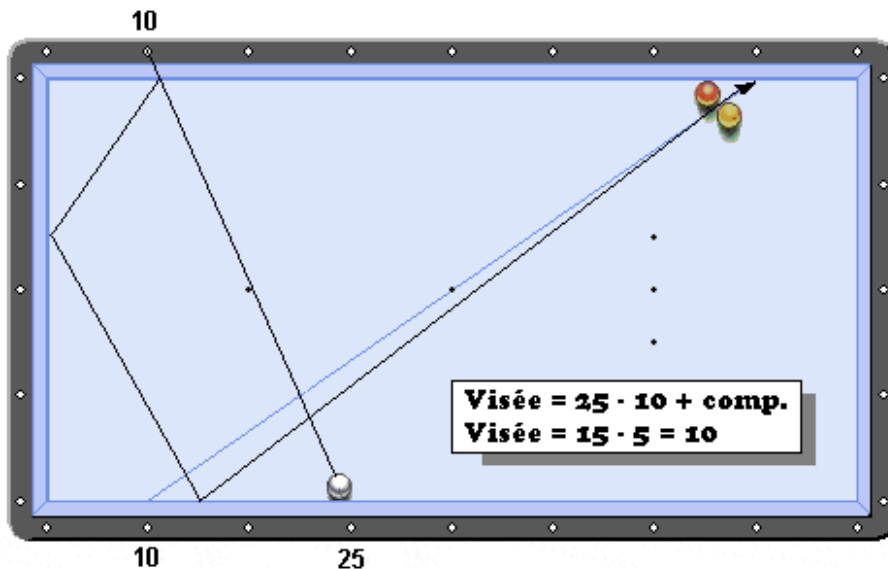
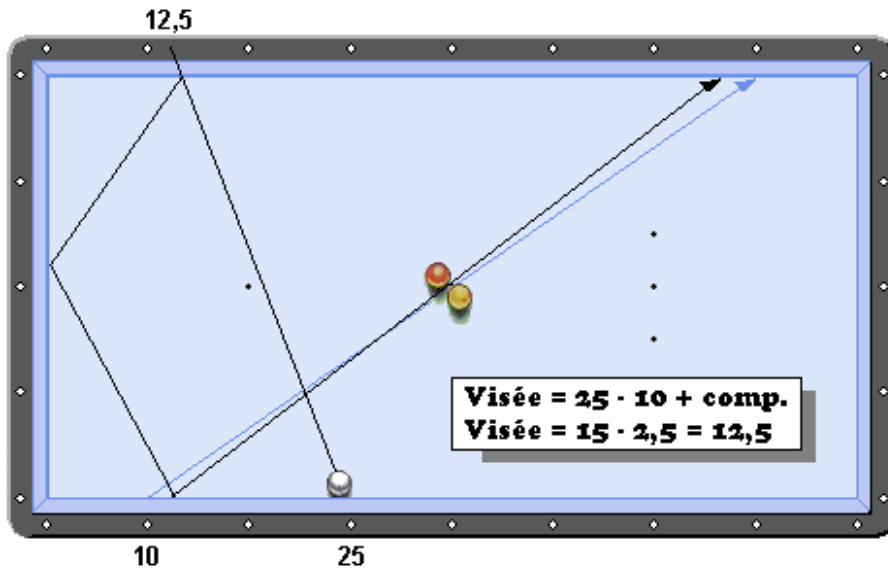
The simplest thing is to divide the table in 4 zones lengthways (defined by the diamonds) and apply more or less compensation according to the zone in which the last ball is is.



### Compensations Example

If we look again at our example with a 25 start for a finish a point 10, the aiming with be between 15 and 10 depending on the balls position on the theoretical path (blue arrow).





## Conclusion

There you go! I hope this information was clear. Theory appears more complex, but I guarantee you the results. You will even be able to determinate with great precision on which side to carom the balls. This becomes very useful while playing 5pin where you'll be able to come out of a difficult mask by diminishing the risks of "castle return".

## Remerciements

I would like to thank Jean Sancho and Philippe Loitron that taught me the difficulties of compensations. Jean gave me also the graphic elements to realize this page. **These translation (French to English) is realised by Thierry LAYANI from "Layani Cues". Many thanks to him for this great contribution.**