# TP 7.2
# Corner-5 three-rail diamond system formulas

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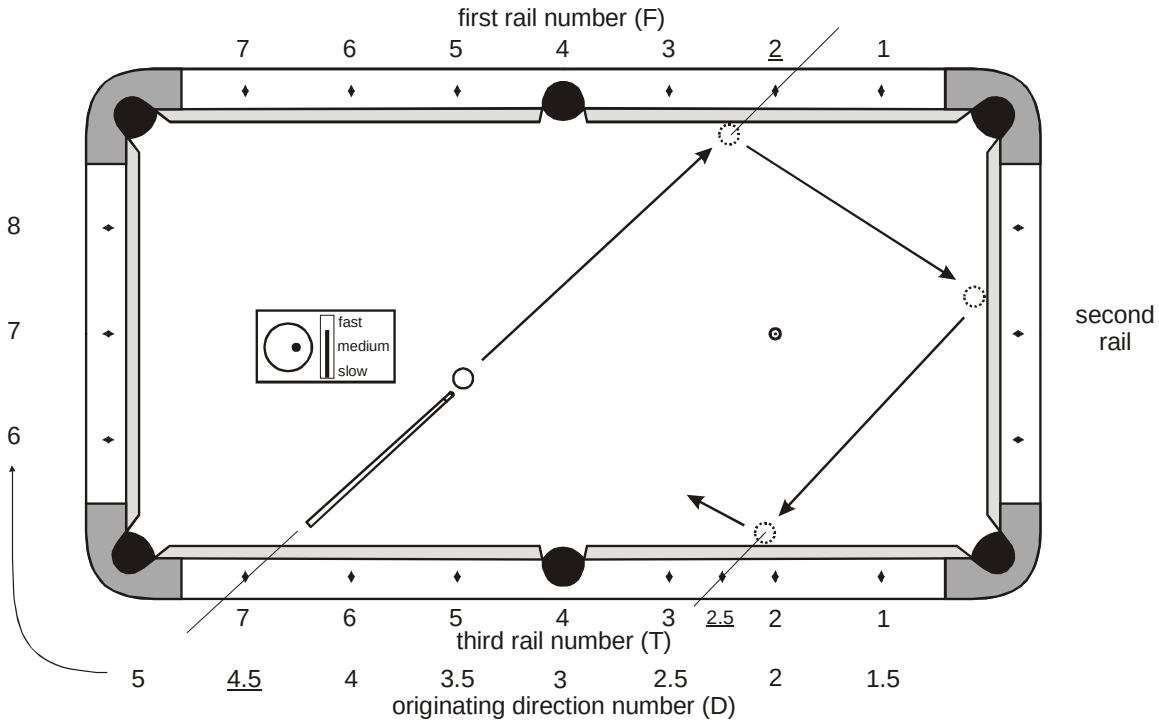
The Corner-5 diamond system is a formula-based method that can be used to aim multiple-rail kick shots. Unlike with some other bank and kick shot systems, you use running English and aim directly through the diamonds. The figure below illustrates the traditional Corner-5 diamond numbering system with an example.




**Traditional Corner-5 diamond numbering system**

The formula for the traditional numbering system is:

$$T = D - F$$

For the ball path shown in the figure above, the originating direction number (D) is 4.5 and the first rail number (F) is 2. Therefore, the ball heads toward the third rail number (T) of 2.5 because:

$$2.5 = 4.5 - 2$$

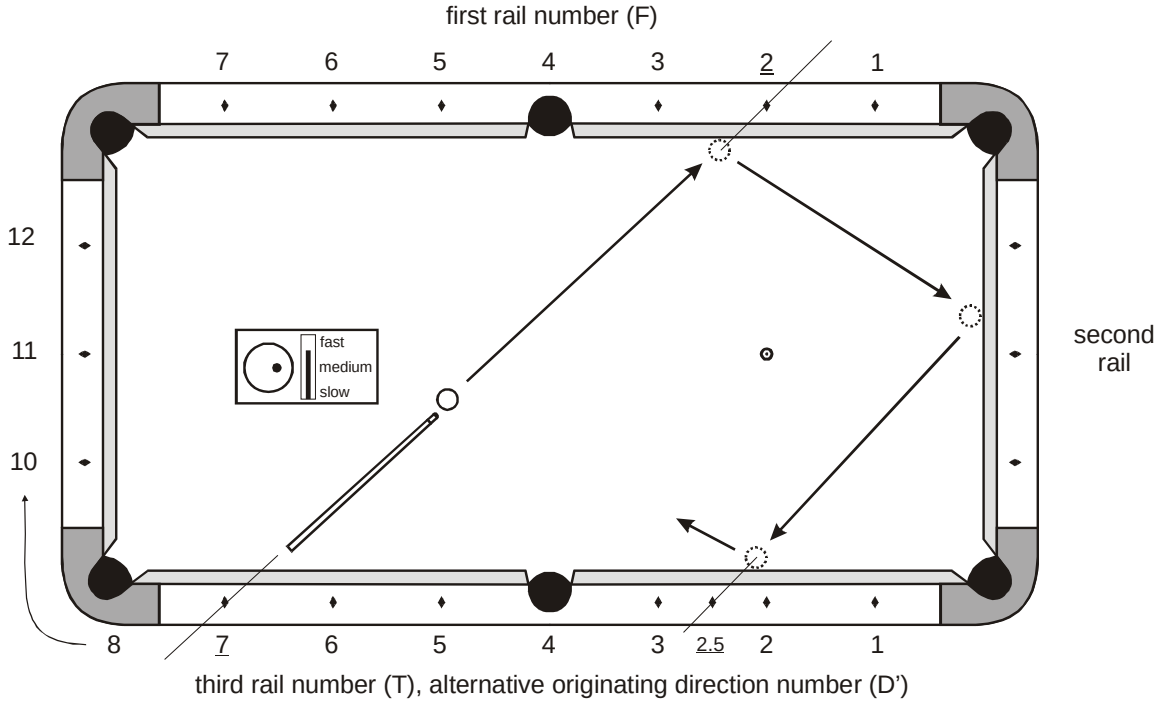
The figure below is an alternative numbering system, where the originating direction numbers (D') are the same as the third rail numbers (T). This offers the advantage of not having to keep

track of two different numbering systems for the same rail. Also, no fractions (3.g., 1.5, 2.5, etc.) are required in the numbering. The formula for alternative number system:

$$T = D'/2 - F + 1$$

The price we pay in simplifying the numbering system is a slightly more complicated formula. There are no free lunches in this world. For the example in the figure, the originating direction number (D') is 7 and the first rail number (F) is 2. Therefore, the ball heads toward the third rail number (T) of 2.5 since:

$$2.5 = 7/2 - 2 + 1 = 3.5 - 2 + 1$$



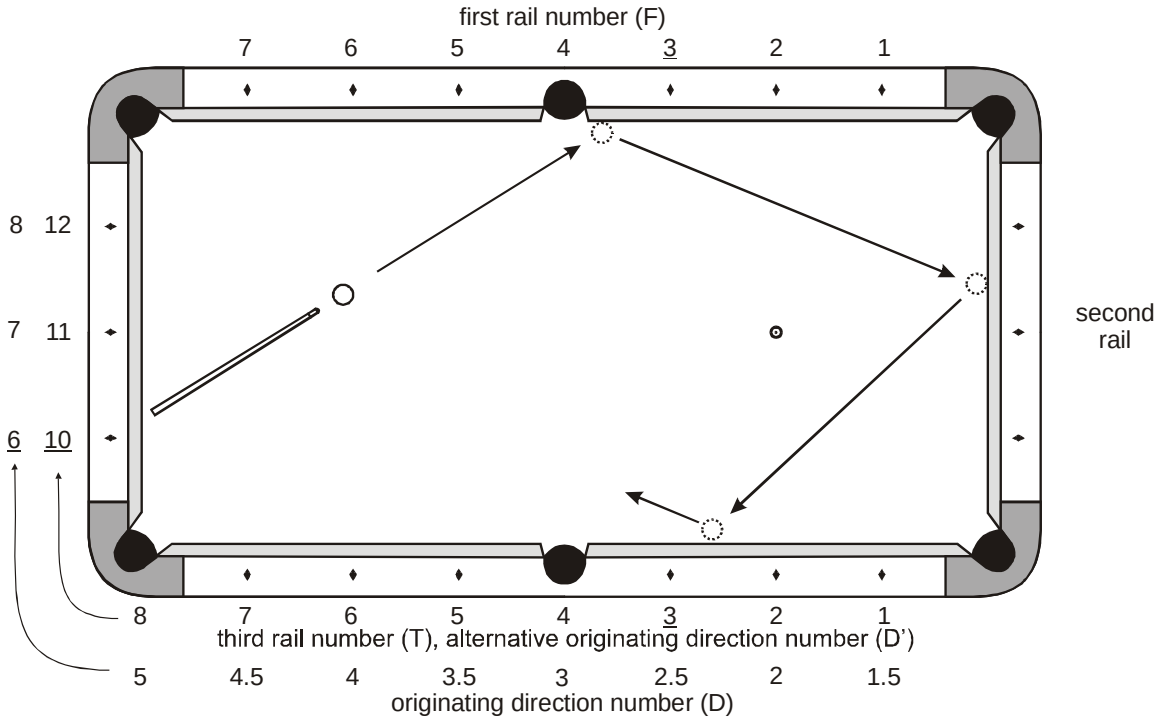

**Alternative Corner-5 numbering system**

The figure below shows an example where the originating direction is from the end rail where the numbering is slightly different. For the traditional numbering method, the originating direction number (D) is 6 and the first rail number (F) is 3. Therefore, the ball heads toward the third rail number (T) of 3 since:

$$3 = 6 - 3$$

With the alternative numbering system, the originating direction number (D') is 10 and the first rail number (F) is still 3. We get the same result for the third rail number (T) of 3:

$$3 = 10/2 - 3 + 1 = 5 - 3 + 1$$




**Example originating from the end rail**