

Supporting narrated video (NV) demonstrations, high-speed video (HSV) clips, technical proofs (TP), and all of my past articles can be accessed and viewed online at billiards.colostate.edu. The reference numbers used in the articles help you locate the resources on the website. If you have a slow or inconvenient Internet connection, you might want to view the resources from a CD-ROM or DVD. Details can be found online at: dr-dave-billiards.com.

This is the fourth article in a series dealing with “[How to Aim Pool Shots \(HAPS\)](#),” a three-disc instructional-DVD set I recently created with fellow *Billiards Digest* columnist Bob Jewett. HAPS covers cut-shot aiming systems, how to adjust for cut-induced throw, how to aim without guessing when using sidespin (english), and how to aim specialty shots including caroms, kisses, combos, rail cut shots, and elevated-cue shots. Also included are numerous simple but effective systems for aiming kick and bank shots. An outline of the entire HAPS series along with video excerpts from each DVD can be viewed online at: dr-dave-billiards.com/aiming.

This month, we will look at how to aim a “carom” shot, where the cue ball (CB) kisses off one object ball (OB) to pocket a 2nd OB. A carom shot is also sometimes called a “billiard.” The 90 degree rule (for predicting stun-shot CB motion) and the 30 degree rule (for predicting a rolling CB’s natural angle) are very useful for aiming certain types of carom shots. For examples, see **NV B.69**. A third rule called the trisect system is very useful for aiming draw carom shots. All three approaches are covered with examples on the 2nd HAPS DVD.

Diagram 1 illustrates the trisect system. It states that for a good action draw shot, the CB draws back at a total angle that is 3-times the cut angle of the shot. In other words, the cut angle (A) trisects the total angle (3A). This rule works well only for cut angles below about 40 degrees, corresponding to a 3/8-ball hit or fuller. For more information and demonstrations pertaining to the how this system works, see “trisect system” on the draw shot FAQ page at billiards.colostate.edu.

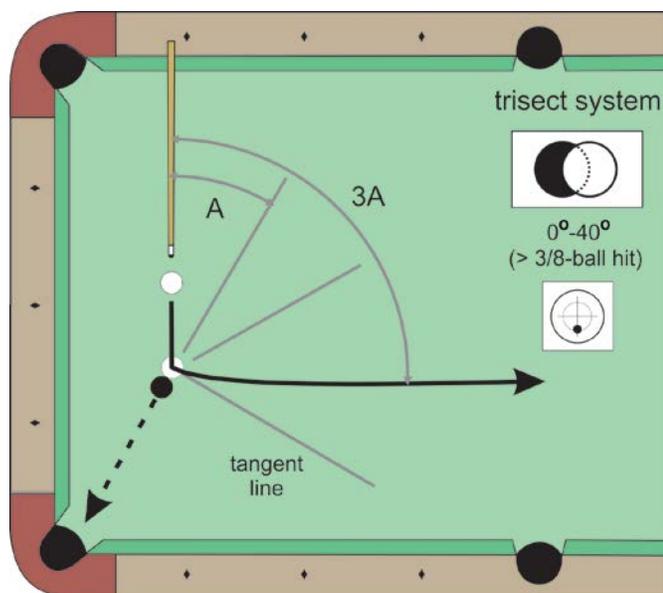


Diagram 1 Draw shot trisect system

Diagram 2 illustrates an example of how it is applied at the table in a game of 9-ball. The goal for this shot is to draw the CB off the 1 to pocket the 9 in the corner for the win. The first step is to visualize the total angle between the CB and desired carom direction. As demonstrated in online video **NV E.4** you can do this by starting with the tip of the cue in the anticipated ghost-ball position, with the cue over the CB ... you don’t need to be perfect here. Then pivot the cue to the desired carom direction, in this case toward the 9-ball. This defines the

total carom angle for the shot. Then, also using your cue, visualize 1/3 of this angle. This defines the required cut angle for the shot, assuming good-action draw. Now you just aim the shot as normal to send the 1 ball in the necessary cut angle direction. It can sometimes help to pick a point on the rail to serve as the target direction for the 1 ball. Using close to maximum backspin, with moderate speed, the carom should work as planned.

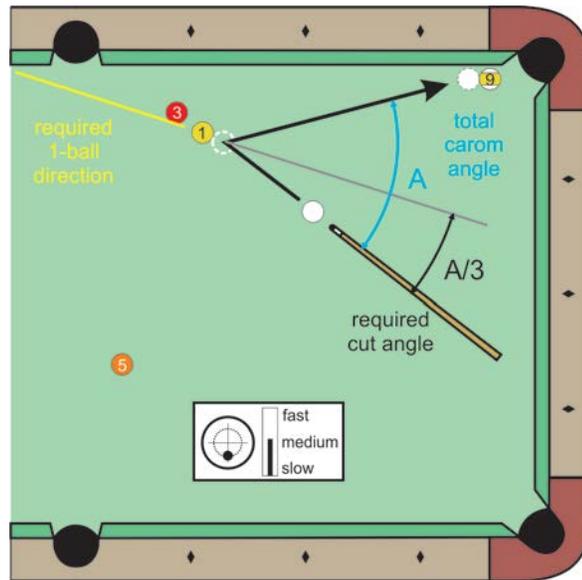


Diagram 2 Carom shot example

I hope you are enjoying my series of articles dealing with the “How to Aim Pool Shots (HAPS)” DVD collection. If you want to view video excerpts from the entire DVD set, check out online videos **NV E.1** through **NV E.8**. Enjoy!

Good luck with your game,
Dr. Dave



- [NV B.69](#) – Carom shots, from VEPS I
- [NV E.1](#) – Fractional-Ball Aiming, from HAPS I
- [NV E.2](#) – Back-Hand (BHE) and Front-Hand English (FHE), from HAPS I
- [NV E.3](#) – Using "Gearing" Outside English to Eliminate Throw, from HAPS I
- [NV E.4](#) – Carom-Shot Trisect-Draw System, from HAPS II
- [NV E.5](#) – Combination Shot Throw Adjustment, from HAPS II
- [NV E.6](#) – Rail Cut Shot Aiming, w/ and w/o Sidespin, from HAPS II
- [NV E.7](#) – Mirror Kick-Shot Aiming System, from HAPS III
- [NV E.8](#) – 1/3-More-Than-Twice Bank-Shot Aiming System, from HAPS III

PS:

- I know other authors and I tend to use lots of terminology, and I know not all readers are totally familiar with these terms. If you ever come across a word or phrase you don't fully understand, please refer to the [online glossary](#) at billiards.colostate.edu.

Dr. Dave is author of “[The Illustrated Principles of Pool and Billiards](#)” book and DVD, and co-author of the “[Video Encyclopedia of Pool Shots \(VEPS\)](#),” “[Video Encyclopedia of Pool Practice \(VEPP\)](#),” “[How to Aim Pool Shots \(HAPS\)](#),” and “[Billiard University \(BU\)](#)” instructional DVD series.