
Supporting narrated video (NV) demonstrations, high-speed video (HSV) clips, technical proofs (TP), and all past articles are available online at drdavepoolinfo.com. Reference numbers used in the articles help you locate the resources on the website.

Do you have trouble with accurate and consistent aiming? If so, check out my recent online video ([NV L.114](#)) that covers useful visualization techniques that you might find helpful. I'll summarize some video highlights below. First, if you haven't seen my "How Pros Aim" video yet (see [NV L.38](#)), check it out. I call the system in the video DAM, for Dave's Aiming Method. DAM really isn't a "system." It's just a summary of all the important things pros do to help them aim so effectively. Before spending much time with the techniques in the new video, I strongly encourage you to incorporate the DAM pre-shot-routine elements into your game. Although, be aware that there is no secret "silver bullet" solution to aiming. It takes time to develop the skill. But the following visualization techniques might help speed the learning process.

The simplest way to aim is to visualize the required contact point (CP) on the object ball (OB) and aim the cue ball (CB) where it needs to go to create that CP (see **Image 1**). If you visualize a line from the center of the pocket through the OB, where the line leaves the OB is the required CP. Another way to think about it is, the CP is the point on the OB farthest from the pocket. When using this approach, be careful not to aim directly at the CP. If you do this, the CB will hit the OB at a very different point (as shown in the video), causing you to miss badly. Instead, you need to send the CB to the place that creates the desired CP.

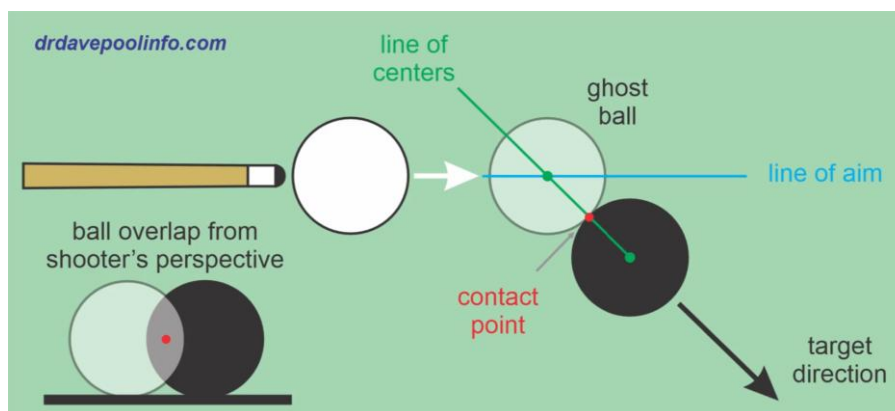


Image 1 Aiming terminology

The aim visualization tool most useful for most people is the ghost ball (GB). It is the imaginary place the CB needs to be at OB contact to send the OB to the pocket. The line through the centers of the GB and OB define the direction the OB will head. If you can visualize the GB, you just need to aim at the center of the GB to pocket the OB. See online video [NV L.114](#) for demonstrations of how you can use your cue to help with both CP and ghost-ball aiming.

In addition to visualizing the CP on the OB, you can also visualize the CP on the CB to help with shot visualization (see **Image 2**). You first visualize a line through the center of the OB to the pocket (the blue line on the right). This locates the required CP on the OB. Then parallel shift this line to the CB (the blue line on the left). This locates the required CP on the CB. Then visualize a line through both CPs (the red line). If you parallel shift this line to the center of the CB (the white arrow), the result is the required line of aim to pocket the ball. This is called "parallel lines" or "contact-point-to-contact-point" visualization. As with all systems in this article, see the video for demonstrations.

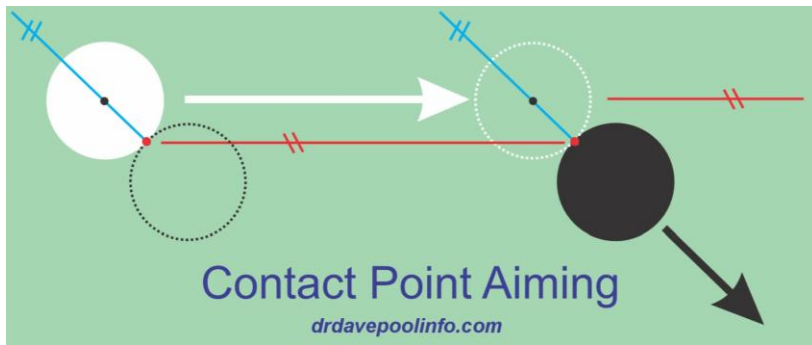


Image 2 Contact point aiming

The video shows various ways you can use your cue to help with aiming. **Image 3** shows one of the approaches called “air cue” aiming. While standing over the shot, just hold up your cue in front of you so you see it passing through the object ball (OB) and target pocket. This can help you visualize the line and angle to the pocket, the location of the GB target, and the required line of aim to pocket the ball.



Image 3 “Air cue” aiming

Another way to visualize shot aim is with the double-distance system (see **Image 4**). If you visualize the distance between the center of the OB and the required CP (the lower “d”), the point of aim is that same distance on the other side of the CP (the upper “d”). For thinner cuts, it can be easier to visualize the smaller distance from the CP to the outside edge of the OB (the upper “x”, which is doubled to locate the inner edge of the GB relative to the CP (the lower “x”). Again, see the video for demonstrations of both approaches.

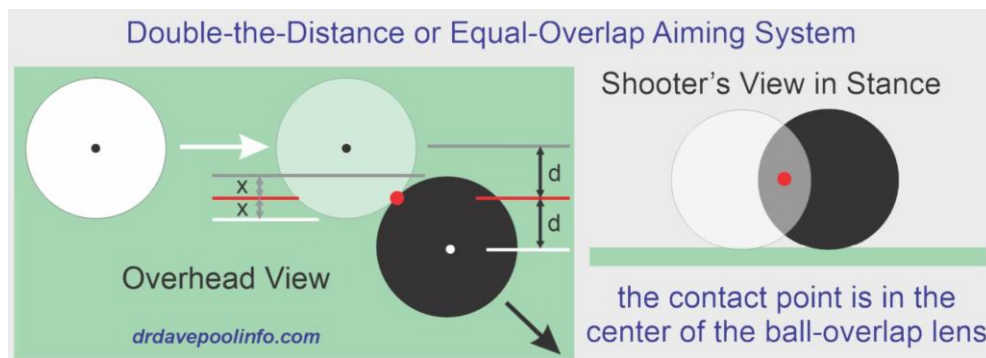


Image 4 Double-distance aiming

Visualizing how much the CB and OB overlap is related to the double-distance approach. The CP must always be in the center of the ball-overlap lens to have the correct line of aim (see the right side of **Image 4**). While aiming in the standing position, you can visualize the required CPs on the OB and CB. This can help you visualize the required amount of ball overlap. Sometimes the amount of ball overlap is called the “shot picture.” This is what you see when you are aiming in the standing position. If you drop straight down into your stance, the “shot picture” will look the same the whole way down.

In the video description on YouTube, there is a link to a [template useful to practice ball-overlap aiming](#) (see **Image 5**). It shows the amount of ball overlap, the CP, and the aim point for all cut angles. The analog clock hours also give you a way to easily visualize different cut angles. To use the template, place the hole over the required ghost-ball position with the arrow pointing at the CB. Looking along the line to the pocket gives the required cut angle, CP, ball overlap, and aim point. You can also place the template on the table with the hole over the GB position with the arrow pointing at the pocket. As demonstrated in the video, this lets you easily visualize cut angle and aiming info for different CB positions.

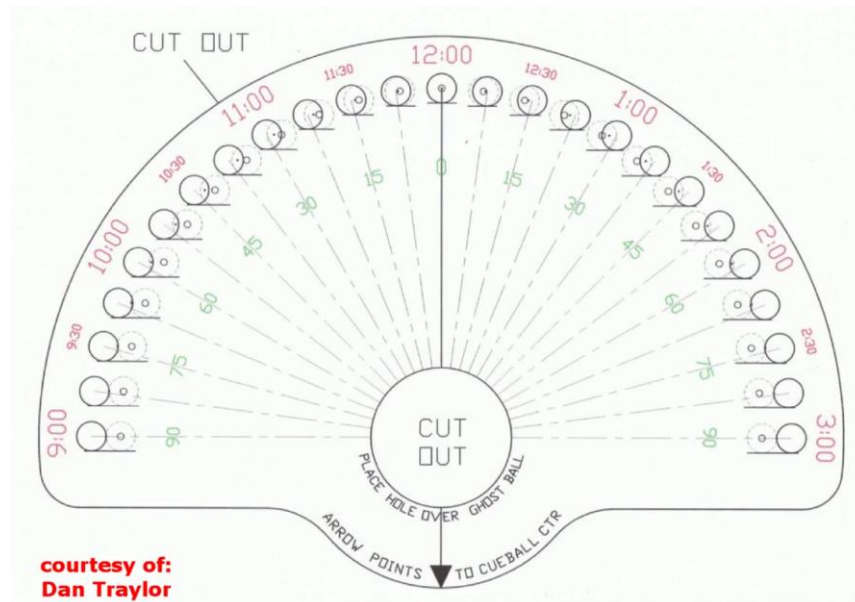


Image 5 [Aiming template](#)

The last visualization technique I will cover here is ball-hit fraction (see **Image 6**). The $\frac{1}{4}$ -ball, $\frac{1}{2}$ -ball, and $\frac{3}{4}$ -ball hits are useful references for judging all shots at these angles and in between. With a $\frac{1}{2}$ -ball hit (see **Image 6b**), the CB overlaps $\frac{1}{2}$ of the OB, and the center of the CB is aimed exactly at the edge of the OB. This “center to edge” (CTE) alignment makes a $\frac{1}{2}$ -ball hit very easy to visualize and aim. The result is a 30° cut angle. With a $\frac{1}{4}$ -ball hit (see **Image 6a**), the CB overlaps only $\frac{1}{4}$ of the OB, creating between a 45° and 50° cut, a relatively thin hit. The CB is aimed a $\frac{1}{4}$ -ball outside the edge of the OB, with the inside $\frac{1}{4}$ point of the CB aimed at the edge of the OB. With a $\frac{3}{4}$ -ball hit (see **Image 6c**), the CB overlaps $\frac{3}{4}$ of the OB, creating about a 15° cut, a relatively full hit. The CB is aimed at the outside $\frac{1}{4}$ point of the OB. Again, all pool shots can be categorized as close to or between each of these benchmark shots. And this categorizing can help some people develop their aiming ability more quickly. The video shows three shots you can set up at a table if you want to practice visualizing and pocketing the standard fractional-ball aims.

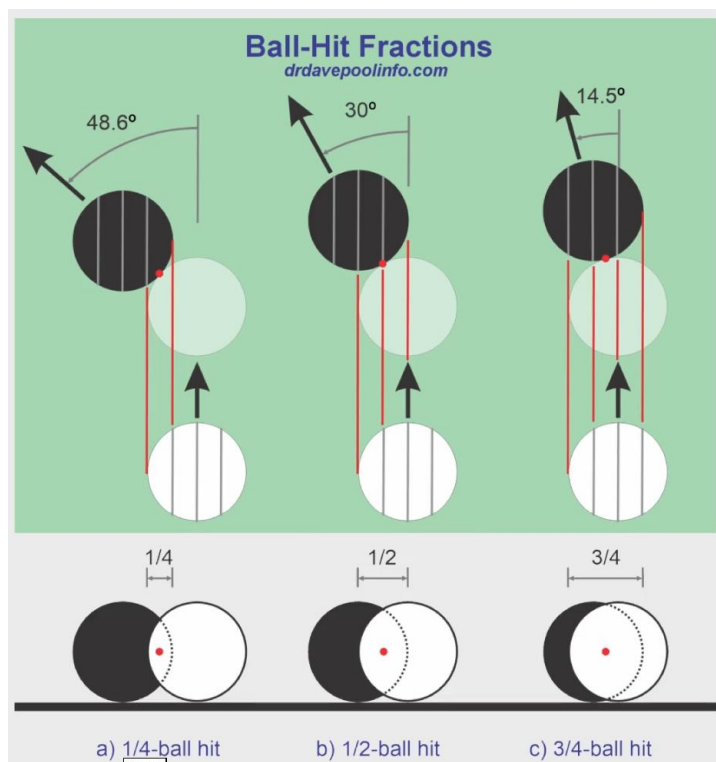


Image 6 Fractional-ball aiming

Be sure to check out online videos [NV L.38](#) and [NV L.114](#) if you want to see everything above is action at the table, and be sure to try out everything to see if any of it might be helpful to your game. And if you want to learn more or explore other aim visualization methods, see the [aiming resource page](#) at [drdavepoolinfo.com](#). Also check out the [“How to Aim Pool Shots”](#) or [HAPS instructional video series](#). HAPS covers many aiming systems and teaches how to aim all types of pool shots.

Good luck with your game,
Dr. Dave



[NV L.38](#) – HOW TO AIM in Pool and Billiards ... The AIMING SYSTEM of the PROS
[NV L.114](#) – Aim Visualization Techniques ... How to Aim Pool Shots

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 do not fully understand, please refer to the [online glossary](#) at [drdavepoolinfo.com](#).

Dr. Dave is a PBI Master Instructor, Dean of the Billiard University, and author of the book: [The Illustrated Principles of Pool and Billiards](#) and numerous instructional DVD series, all available at: [DrDaveBilliards.com](#).