
Note: Supporting narrated video (NV) demonstrations, high-speed video (HSV) clips, and 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 article 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 based on the “[The Video Encyclopedia of Pool Shots](#) (VEPS),” an instructional DVD series I recently created with past BD columnist and good friend Tom Ross. VEPS contains over 750 shot types within 50 main categories and 5 major areas. Many clips in the series are also designated as “gems,” indicating shots or concepts important to know as a pool player, whether understood explicitly or in a more intuitive way. An outline of the entire VEPS series, the complete list of shot types in each major area, the gem designations, and video excerpts from each DVD can be viewed online at: dr-dave-billiards.com/veps. Last month we looked at some gems from the second DVD: “[VEPS II: English and Position Control](#).” This month, we’ll look at selected gems from the third DVD: “[VEPS III: Safety Play and Strategy](#).”

Diagrams 1 and 2 illustrate how to use the 30° rule to plan strategic ball-in-hand shots. The rule predicts that over a wide range of cut angles, between a 1/4-ball and 3/4-ball hit, the cue ball (CB) will deflect very close to 30° from its original direction after hitting the object ball (OB). This angle can be visualized using the peace-sign technique. See **NV B.66** for demonstrations, examples, and further explanation. A [one-page summary of the 30° rule](#) can be found in the instructor/student resources section of my website.



[NV B.66](#) – The 30-degree rule, from VEPS I

Diagram 1 (VEPS Shot # 408, demonstrated in **NV B.75**) shows a 9-ball 30° billiard opportunity with ball-in-hand (e.g., because your opponent just fouled). Whenever the 9-ball is close to a pocket, you should look for a possible combination, carom, or billiard shot for the win. Here we don’t have a reasonable combo, but a billiard (CB carom) off the 1-ball is available. Diagram 1 shows how you can use the 30° peace sign to aim the shot. If you align your index finger in the desired billiard direction to the 9-ball, the middle finger defines the line where the CB must be placed for a slow-roll ½-ball hit. With a well-calibrated peace sign, this shot is much easier than it may appear. For more info, see **NV B.66**.

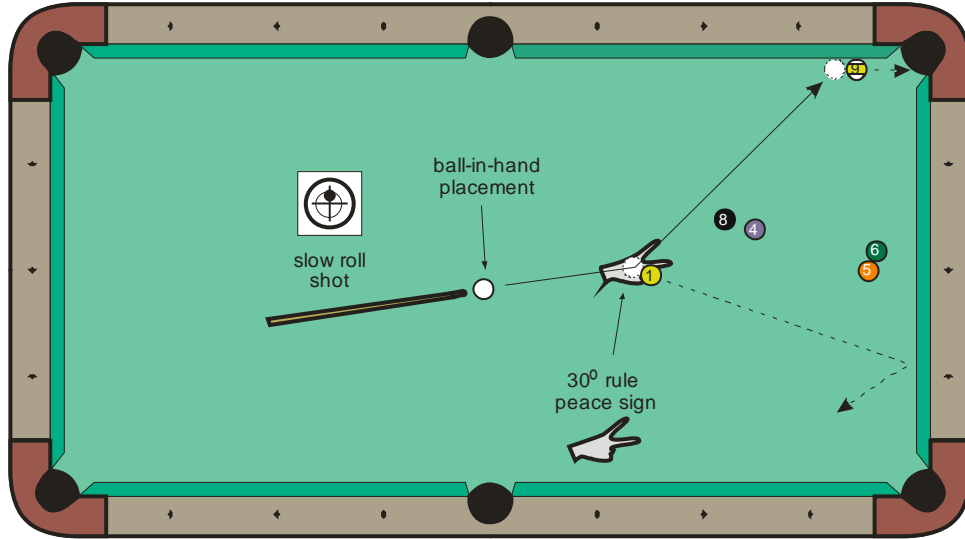


Diagram 1 Using the 30° rule for a ball-in-hand billiard victory

Diagram 2 (VEPS Shot # 409, demonstrated in **NV B.75**) shows another example of how you can use the 30° rule, in this case to aim a cluster break-out safety. This is a game of 8-ball. You have ball-in-hand and are playing stripes. If you don't address the 9-ball-13-ball cluster immediately, you have very little chance to win this game, because neither of these balls can be pocketed easily as they lie. We also can't leave our opponent with an easy shot, because he or she will likely run out. Here one option is to billiard the CB off the 11-ball to break out the cluster. The shot is aimed using the 30° peace sign as above. With soft speed, the 9-ball and 13-ball are separated slightly and block any direct route to the solids. Our chances are now good to win this game. Whenever you get ball-in-hand after a well-executed safety or an opponent mistake, you should always look for 30° rule opportunities like the ones in Diagrams 1 and 2.

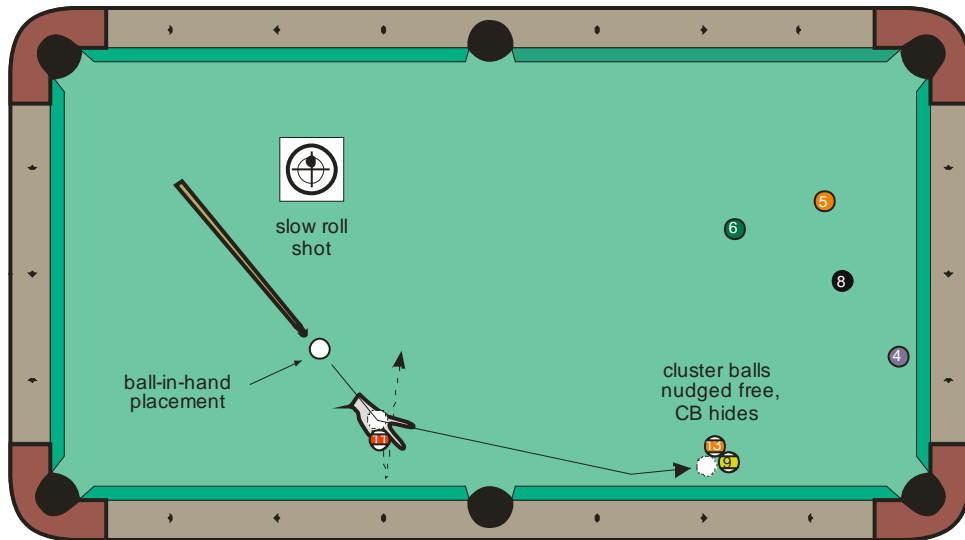


Diagram 2 Using the 30° rule for a ball-in-hand cluster-break-out safety

Diagram 3 (VEPS Shot # 370, demonstrated in **NV B.76**) shows two possible ball layouts after a 9-ball safety. In shot “a,” the 8-ball is left fairly close to the rail; and in shot “b,” the 8-ball is left away from the rail. The CB is hidden just as well in both cases. Our opponent has the option to jump at the 8-ball, but let’s assume that he or she will be kicking. Which is the better place to leave the 8-ball? Think about it before you come up with an answer. (“Jeopardy” music) With the 8-ball about one ball’s width off the rail, it’s effective “size” is much larger than if it were out in the open. As shown in Diagram 3c, there is a very wide margin for error with the 8-ball sitting so close to a rail. The two extreme CB paths are shown, but every CB path in-between also makes contact. The effective “size” of the 8-ball at this position is 4x or 5x the actual size of the ball, making it almost impossible to miss! Diagram 3b shows the better safety option, where the 8-ball is left out in the open. As illustrated in Diagram 3d, the “effective size” of a ball here is just the size of the ball, regardless of the path. The margin for error is much smaller when kicking at a ball sitting well-away from a rail. So it is important to remember: When hiding the CB, don’t leave the OB close to a rail!

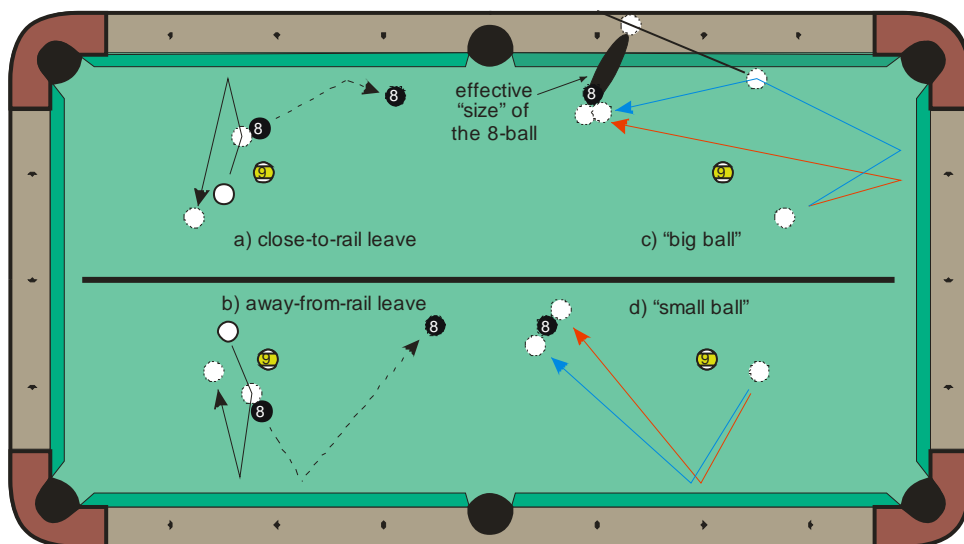


Diagram 3 Leaving a “big” vs. “small” ball after a safety

Example gems from the third VEPS DVD, including the ones discussed above, can be viewed on the [VEPS website](http://www.veps.com) or at billiards.colostate.edu under **NV B.75** through **NV B.80**.



- [NV B.75](#) – 30-degree-rule natural-angle examples, from VEPS III
- [NV B.76](#) – Don’t leave “big ball” for kick safety reply, from VEPS III
- [NV B.77](#) – Playing for exact position instead of to an area, from VEPS III
- [NV B.78](#) – How to choose good “key” balls, from VEPS III
- [NV B.79](#) – How to choose solids vs. stripes after an 8-ball break, from VEPS III
- [NV B.80](#) – How and when to break out clusters in 9-ball, from VEPS III

Well, I hope you enjoy and benefit from my series of articles highlighting shots and gems from the “[Video Encyclopedia of Pool Shots](#)” series. Next month, we’ll look at selected gems from the fourth DVD: “VEPS IV: Banks, Kicks, and Advanced Shots.”

Good luck with your game,
Dr. Dave

PS:

- I know other authors and I tend to use lots of terminology (e.g., squirt, throw, stun, ball-hit fraction, etc.), 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](#) on my website.
- I want to thank Jim Valasina. He graciously proof-reads my articles every month to help find errors and make suggestions. My article quality is better as a result of his efforts. Thanks again Jim!

Dr. Dave is author of the book, DVD, and CD-ROM: “[The Illustrated Principles of Pool and Billiards](#),” the DVD Series: “[The Video Encyclopedia of Pool Shots](#),” and the DVD: “[High-speed Video Magic](#).”