

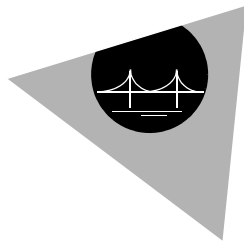
**The San Francisco Billiard Academy**

Presents:

# **A Basic Pocket Billiards Clinic**

Taught by PBA-Trained Instructors

Video and Technical Analysis  
Progressive Practice Drills  
Mechanics Drills  
Review of Fundamental Knowledge



**SFBA**



*"What a feeling to shoot better and consistently.  
We'll show you the way."*

## Pocket Billiards Principles

# WELCOME

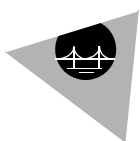
Welcome to the San Francisco Billiard Academy's Pocket Billiards Principles Clinic. The clinic was created by the Billiard Academy to give you essential basic knowledge of the game and to check the mechanics of your stroke and give you ways to improve it.

The clinic includes video analysis, drills to improve the mechanics and dynamics of the stroke, progressive skill measurement drills, and customized workout drills that include point systems to record in your practice logs.

Each clinic is limited to four students per instructor to allow time for each student to get his problems addressed.

Thank you for your participation in the clinic. We hope that it will be the best learning experience of your pool career. Please feel free to call the instructors with any questions.

Instruction is available at billiard rooms throughout the Bay Area and in private facilities by arrangement.



## Pocket Billiards Principles

### **Clinic Outline**

Introduction of Staff

Introduction of students and review of questionnaire

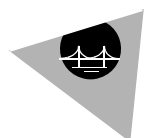
The Clinic is divided into four parts or “stations” which each cover one aspect of basic pocket billiards. You will be in one group of up to four students who will go through the clinic together. Each station will take about 50 minutes with 10-minute breaks between stations.

Stations:

1. Basics, Part 1 -- cue selection, chalking, basic stance and sighting
2. Stroke/cueing and mechanics -- putting the basics into practice
3. Basics, Part 2 and an intro to Progressive Practice
4. Video analysis of fundamentals

(Wrap-up)

Be sure to take notes on this handout, especially when things aren't clear and you may need to ask questions later. If you have trouble on a drill, write down the problem for future work.



## **Station 1: Basics, Part I**

**Goal:** To learn basic concepts of the game.

### 1. Cue selection

Goal: consistent, accurate shots

- Tip: curvature and minimum thickness of a nickel
- Ferrule: tight, no clicking
- Diameter: 13mm maximum (discussed later with side spin)
- Weight: about 19 to 20 ounces, but always the same once you have chosen
- Straightness: how to compensate
- Cleanliness -- you may want to get a glove
- Squirt/Deflection: happens when you apply side spin, more on this in Basics II.

### 2. Chalk

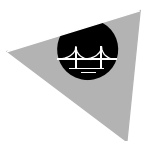
Goal: avoid miscues on spin shots

- How: a uniform coat of chalk increases friction tip-to-ball
- Technique: one way that works: use the edge
- Find the limits, up, down, left, right
- Check: Look at the tip!

### 3. Stance

Goal: Permit consistent sighting and stroking. Reduce the variables!

- Bridge(s): open, closed, fist, rail, adjusting height,
- Bridge arm: elbow straight (or planted) to reduce variation
- Head/Eyes: sighting like a rifle, but people vary
- Legs/Feet: solid, reduce variation -- stable against a little nudge
- Grip arm: free to swing like a pendulum, forearm mostly, cue stick as level as possible
- Grip: simple, consistent (“rattle down” technique), not for power



## Pocket Billiards Principles

### 4. Shot sequence

Goal: Make all the important parts of the shot a natural part of your routine. Each shot is like an experiment while you are learning, so set up carefully and get the most out of each shot.

- Decide on shot and chalk
- Get your head on the right line first, then step in to the shot. (The CB should appear to rise vertically to the OB.)
- Eye motion: cue ball and object ball, OB last
- Aim, fiddle, pause, decide (repeat)
- Slow back, pause (may be brief)
- Smooth forward, straight finish
- Observe and analyze results

### 5. Pool shot geometry

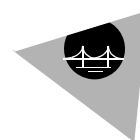
Goal: Learn basic concepts to pocket a ball

- The cut angle: the angle between the path of the cue ball and the path of the object ball.
- The angle can be described by the degrees of the angle or by the fullness of the hit.
- Vocabulary: straight shot, cut shot, thinner, thicker, more ball, less ball, fatter, skinnier, fuller, degrees of cut

### 6. Basic sighting

Goal: get an approximate target until experienced

- Ghost ball: works for all shots, more or less. Visualization is hard.
- Half ball shot: the only angle with a clear target
- Other fractions: full, 3/4, 1/4, etc (see Appendix 1)
- Thin cuts: edge at edge, lens or football overlap.



## Station 2: Stroke Mechanics Drills

**Goal:** To burn into your muscle memory the right way to **stroke** the cue.

This type of practice is especially important for new players who are just learning an accurate stroke so they don't learn bad habits that have to be corrected later. It also reveals any stroke flaws in more experienced players.

1. **Over the spots drill.** Place a striped ball on the head spot with the stripe vertical. Using center ball, stroke the ball over the foot spot to the far rail and back over the spots. Ideally the stripe will not even wobble, but set as your goal to keep the ball rolling on just the stripe. Shoot this shot at least ten times. Try to increase the speed while maintaining cueing accuracy. The shot is easier if you cue above center for smooth rolling from the start.

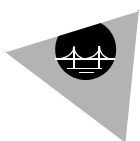
### 2. **A. Simple drill from the rail**

With a line of balls as in position 2 in the diagram, shoot each ball into the far corner pocket while working on all your fundamentals. Use a rail bridge and place the balls a comfortable distance from the rail. Use a target to mark the center of the pocket and strive to send the ball directly over the center of the target.

### **B. One-handed drill.**

Place your bridge hand on the rail next to the cue stick (but not touching it) for support and to simulate a regular two-handed shot. Place an object ball half a diamond from the rail. Stroke the ball into the far corner pocket. Some details to allow you to check your follow-through and straightness:

- Mark the spot where the object ball is placed, perhaps with a paper reinforcement.
- Mark a second spot about five to six inches beyond the first spot.
- After the stroke, your tip should stop about at the second spot.
- The tip should finish on the cloth showing that the elbow has not dropped.

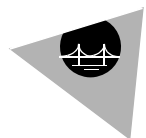
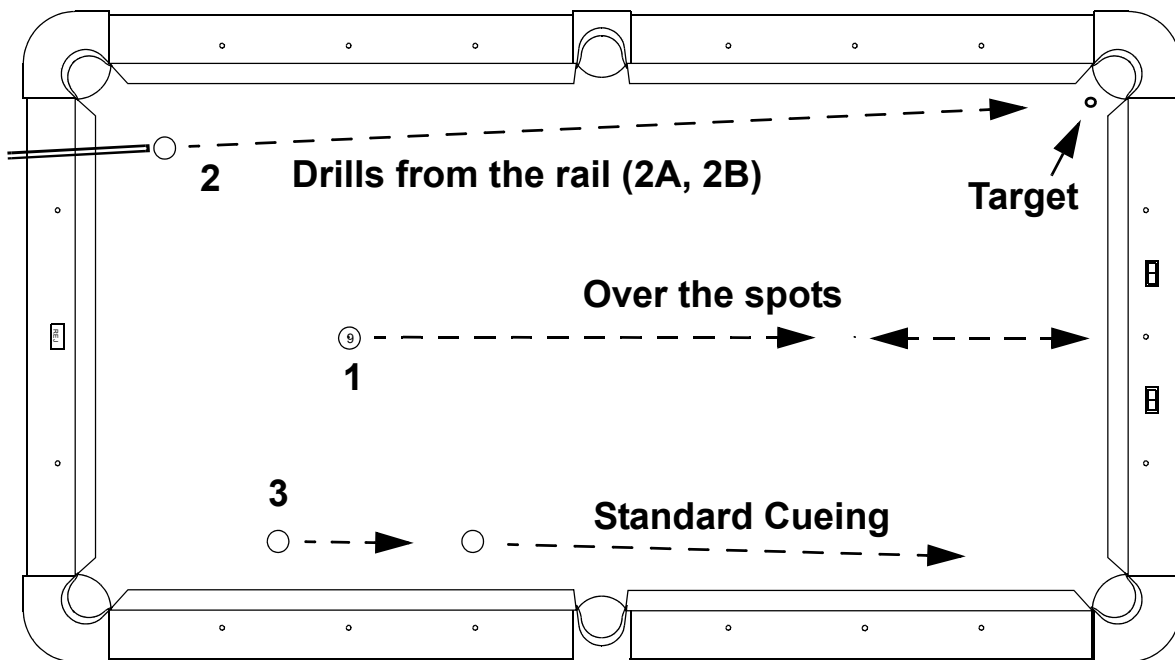


## Pocket Billiards Principles

Repeat this drill until the motion feels natural and all of the requirements are satisfied. Do you finish even with the second spot? Does the tip stay down? Are you accurately pocketing each ball in the center of the far pocket?

- Standard cueing drill.** In this drill, you will shoot normal shots, but the important things are to notice where the cue tip finishes and to extend the motion of the previous drill. Place markers for the cue ball and object ball as shown in the diagram. The shot should be perfectly straight into the far corner pocket. Also place a “finish” marker six inches in front of the cue ball to help measure the length of follow through again. First try the shot with follow. Remember the stroke you practiced in the one-handed drill.

Again, repeat the drill until you are satisfied that the mechanics of the stroke are right. After follow is working well, repeat with stop and draw shots, shooting each kind at least ten times. Are you following through six inches to the marker spot.



## Station 3: Basics, Part II

**Goal:** Learn further basic concepts in pocket billiards.

Basic position play

### 1. Straight shots

- Stop: easiest to plan, most accurate when close
- Follow: natural rolling, least accurate when close (short shot)
- Draw: most difficult to control

Brief practice

### 2. Angled shots -- perpendicular cue ball path at the first instant

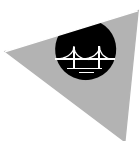
- “Stop” continues along the perpendicular
- Follow bends the cue ball forward
- Draw pulls the cue ball back

### 3. Using side spin (english)

- Why: usually to change the angle of rebound from a cushion
  - “Running” side adds speed
  - “Reverse” side reduces speed
- Problems, each can cause a miss
  - Miscues - check your tip!
  - Squirt - like a “minor miscue”
  - Swerve - back the other way - Stay level!
  - Throw - ball-to-ball friction
  - Cling/skid - like extreme throw

### 4. Making other bridges: raised, mechanical, left-handed, any others?

### 5. Introduction to Progressive Practice (Appendix 3)





## Station 4: Video Analysis of Fundamentals

**Goal:** To check for any flaws in fundamentals and to form a plan for improvement.

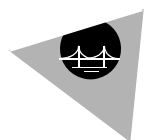
**Technique:** Each student will shoot several shots which will isolate different aspects of form and stroke. After all students have been taped, we will review each shot, looking for both good points and those that could be better.

Good fundamentals to watch for:

- Forearm perpendicular at contact
- Anchored bridge hand
- Minimum elbow drop
- Body still
- Follow through:
  - straight
  - long enough
- Head over stick

Also go over the checklist in Appendix 2.

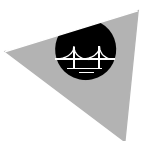
Notes:



## **Wrap-up and Future Topics**

**Goal:** Answer any remaining questions about the material covered in the clinic and suggestions for further study.

1. Clinic topics
  - Cue selection, stance, basic sighting
  - Mechanics drills
  - Basic position play
  - Video analysis
2. Banking
3. Breaking
4. Combining position plays to form patterns
5. Swerve and masse
6. Game strategies

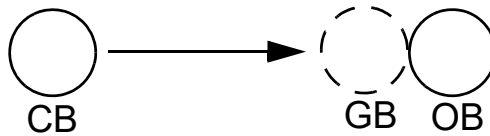


## Appendix 1: Fractional Ball Aiming

One's knowledge of cut angles to pocket balls comes from judgement and experience. Below are five basic types of contacts between the cue ball (CB) and the object ball (OB) including the ghost ball (GB). The balls on the right show the overlap from the player's viewpoint.

Top view Tip's-eye view

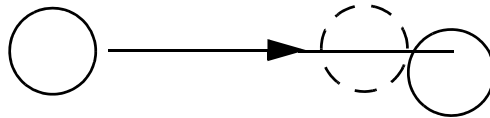
Full Ball  
center to center



0° cut



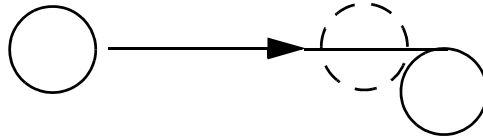
3/4 Ball  
center to half  
way to edge



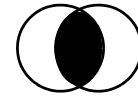
~15° cut



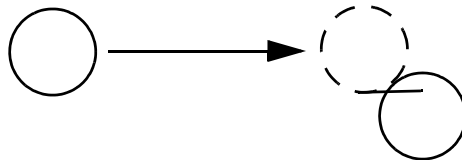
1/2 Ball  
center to edge



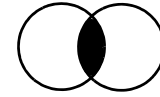
30° cut



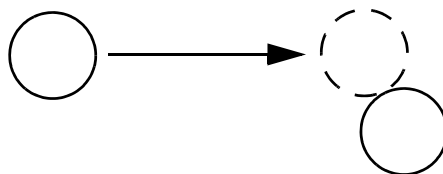
1/4 Ball  
edge to half  
way to edge



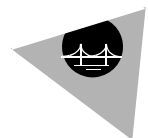
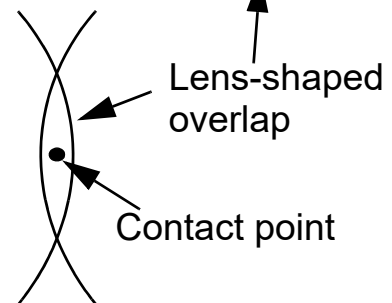
~45° cut



Thin cut  
edge to edge  
with very thin  
overlap



60° to  
80° cut

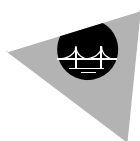


Pocket Billiards Principles

## Appendix 2: Billiard Fundamentals Rating Sheet

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Area	Item	Comments
Grip	<input type="checkbox"/> No daylight <input type="checkbox"/> Hand relaxed <input type="checkbox"/> Wrist aligned with forearm <input type="checkbox"/> Forearm perpendicular at contact	
Bridge	<input type="checkbox"/> Anchored bridge hand <input type="checkbox"/> Firm guidance for cue <input type="checkbox"/> Proper bridge length <input type="checkbox"/> Solid rail bridge <input type="checkbox"/> Over ball bridge <input type="checkbox"/> Straight or anchored bridge arm <input type="checkbox"/> Mechanical bridge technique	
Stroke	<input type="checkbox"/> Elbow pendulum swing <input type="checkbox"/> Close approach <input type="checkbox"/> Complete practice strokes <input type="checkbox"/> Slow backswing, possible pause, smooth acceleration <input type="checkbox"/> Straight follow through long enough <input type="checkbox"/> Minimum body movement	
Stance	<input type="checkbox"/> Feet placed consistently <input type="checkbox"/> Weight and balance even <input type="checkbox"/> Rear leg is straight if possible <input type="checkbox"/> Major parts in a vertical plane <input type="checkbox"/> Appropriate head elevation	
Aim	<input type="checkbox"/> Head square to shot <input type="checkbox"/> Cue at vision center <input type="checkbox"/> Looks at object ball last	
Other	<input type="checkbox"/> Chalks frequently and correctly <input type="checkbox"/> Consistent tempo <input type="checkbox"/> Gets up from shot when unsure	

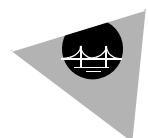
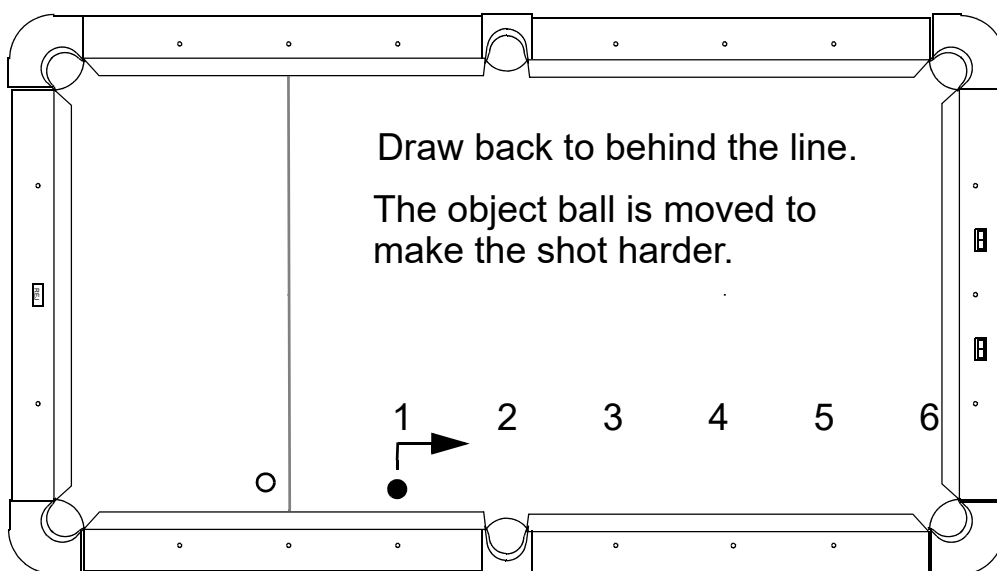
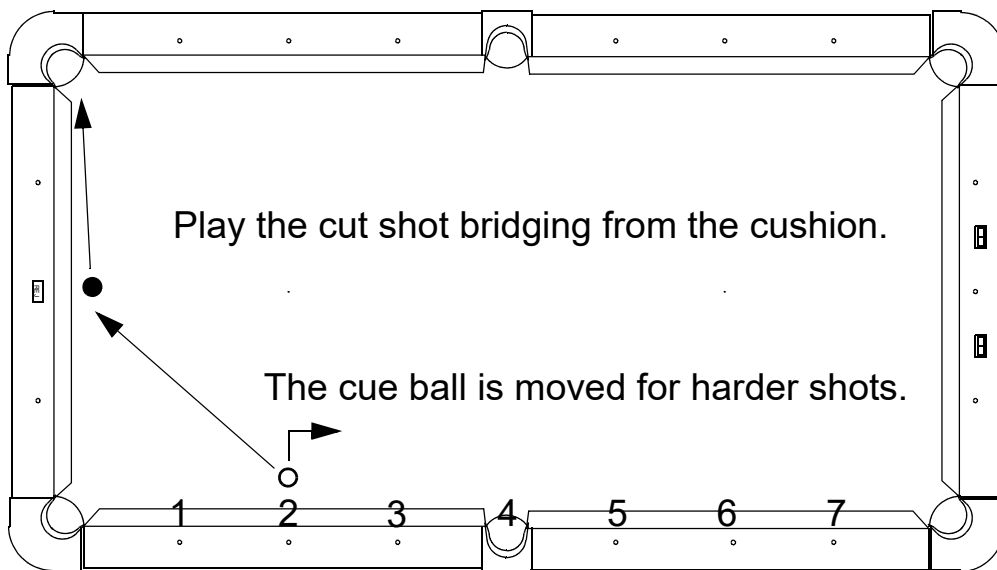


## Appendix 3: Progressive Practice Drills

**Goal:** Improve cue ball control and basic aiming with structured drills.

**Technique:** Shoot a shot that needs a specific skill, and if successful, make the next shot harder, but if not successful, make the next shot easier. After ten or so shots, note your skill level.

**Examples:** A cut drill and a draw drill:



## **Progressive Practice**

**permits precise pocketing percentage predictions.**

By Bob Jewett, originally published in *Billiards Digest*, Dec. 1992

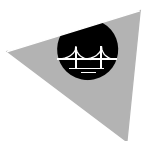
The “progressive practice” method described below has big advantages over standard drills. It automatically adjusts the difficulty of the shots to match your improvement, it lets you measure your percentage for each kind of shot without any bookkeeping, and it allows you to easily compare your performance on a particular table or day with previous practice sessions. It’s adaptable to many kinds of aiming and position drills.

Let’s start with a draw drill. In figure 1, the object ball is always near the long rail just out of the pocket jaws. Start with the cue ball in position 1, one diamond from the corner. The goal is to draw the cue ball back at least to 1. Each time you get enough draw, move the cue ball a diamond further back. For example, if you make the shot from 1, the next shot is from 2 and you have to draw the cue ball back at least to 2. If you do 2, try 3 next.

When you miss either the shot or the draw, the cue ball goes half a diamond closer to the object ball. If you miss at 3, your next shot is from 2.5, or half way between 2 and 3. Continue adjusting the distance after each shot until you’ve pocketed all 15 balls. Note your final position. The reason for the big steps at first is to get you fairly quickly to a shot difficulty that is somewhat challenging for you.

Let’s grade the result. If you ended at 1 or 2, you get a B for “beginner”. A few minutes of instruction from the local pool professor should be beneficial. If you ended between 3 and 5, you get an A for “average.” That’s enough draw for most draw situations. If you ended between 6 and the end rail, chalk up an E for “enough” for nearly all draw shots.

Because you make each shot a diamond easier or harder if you miss or make the shot, the final position is close to your 50% success point. Shorter distances are better than even money for you, while at longer distances the odds are against you. If you want to know your 50-50 point more accurately, redo the drill starting from your last position but change the distance only a quarter-diamond each time. The smaller changes result in a smaller error in



## Pocket Billiards Principles

the measurement.

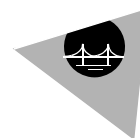
A somewhat easier progressive drill using the same position is a stop shot. The goal is to pocket the object ball and leave the cue ball within a diamond of the pocket. Ideally the cue ball won't move at all after it hits the object ball. If you need a harder drill, draw the cue back to within a hand span of its starting position. You lose for too much or too little draw or wandering away from the rail. Put your thumb tip on the nose of the rail where the cue started. Your little finger must reach to the cue ball for the shot to be good. Very tough to get to 6.

A pure aiming drill is shown in figure 2. The object ball starts on the spot, and the cue ball is a diamond from the rail. Above average players will be able to turn the corner at position 5. The usual way to practice spot shots is to play from the same position over and over with the dangers of boredom and grooving the aim to a single specific shot. The shots under progressive practice continuously change and force you to aim anew each time.

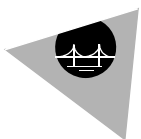
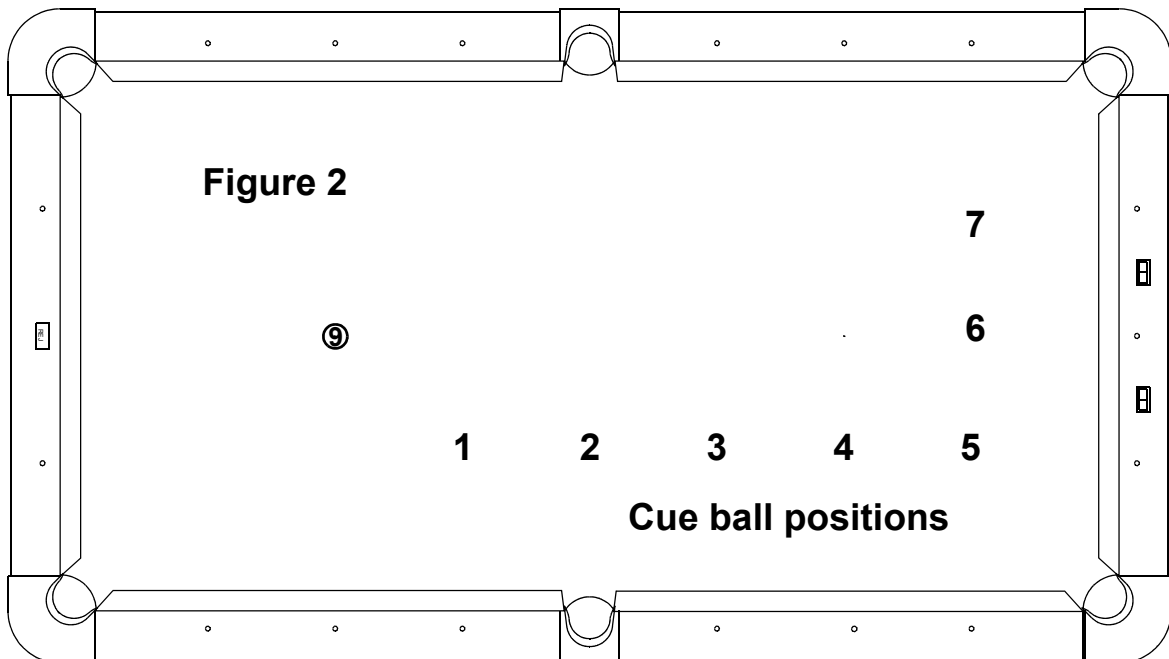
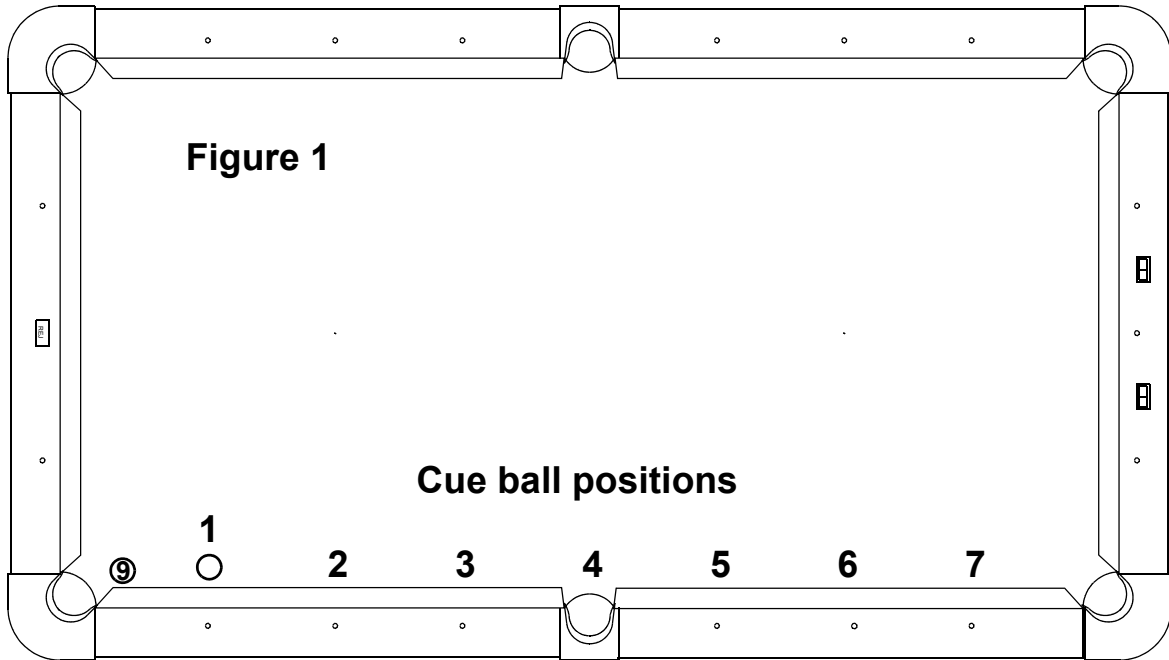
The 50-50 point gives a good mix of challenge and reward which results in rapid improvement, but the system can be modified to find other percentages. To find the point at which you make 2/3 and miss 1/3 of the time, simply make the position two notches easier when you miss and one notch tougher when you make (where a "notch" might be a quarter diamond). When you've settled in on the 67% distance, you'll make two for each one you miss and have no net motion.

While you're at it, don't forget your other side! The draw drill will be extra tough on the side of the table where it requires either a bridge or shooting wrong-handed. Either way, you can find out how much accuracy you lose on your weak side. For the spot shot, there should be very little difference in the two sides. If there is consistently a large difference, there is likely a fundamental flaw in your aiming or stroke and it's time to get back to basics.

In the five extended sets of drills below, log your results, multiplying by the level to get your total score. If you usually end at position 4 or better on every shot on a level, move on to the next level unless you want an easier warm-up.

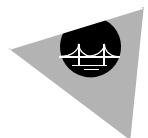
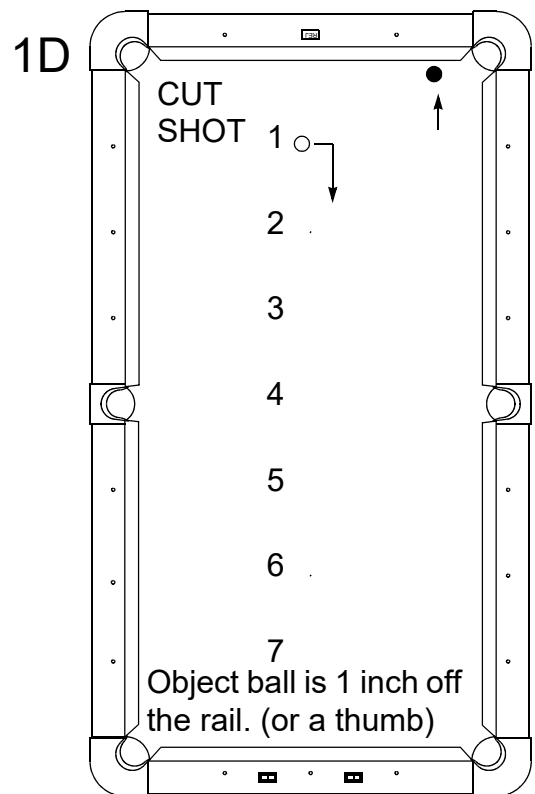
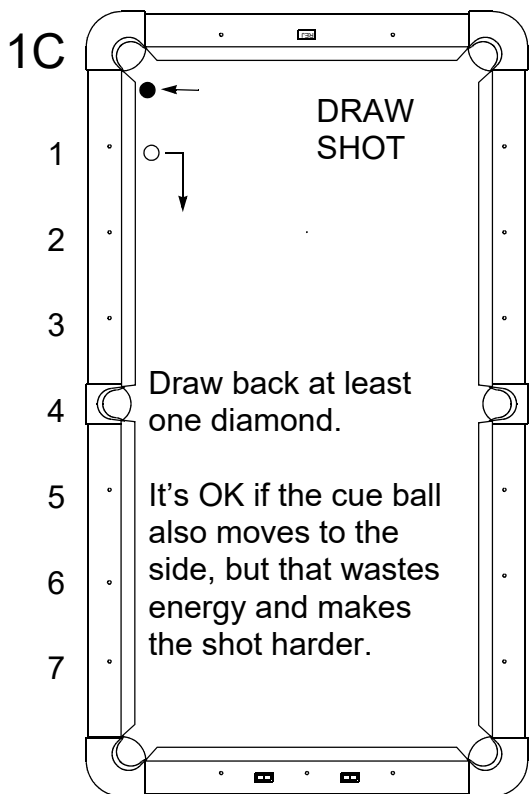
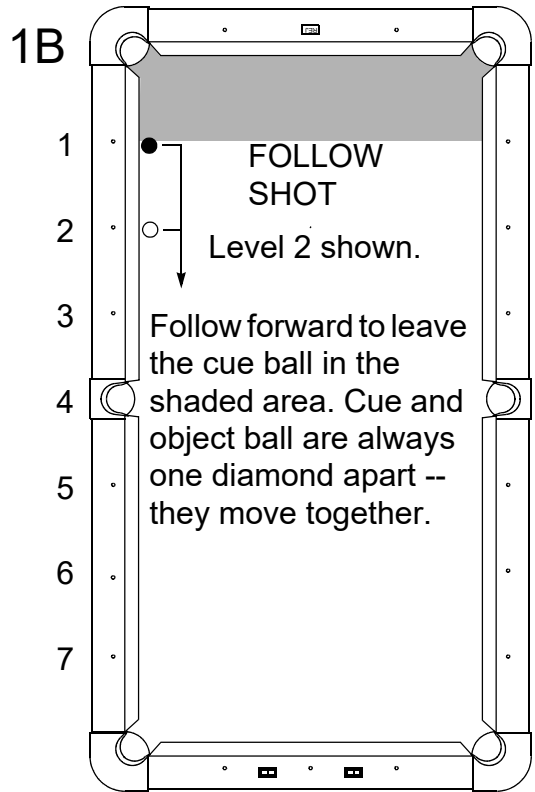
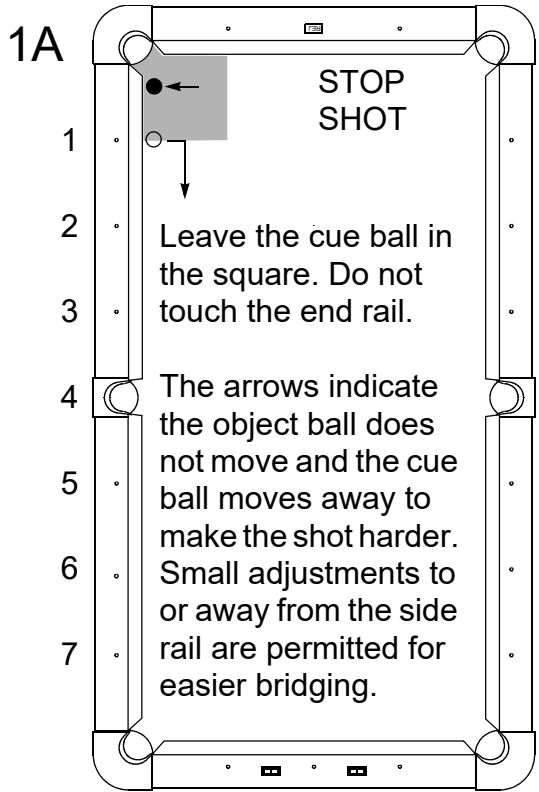


# Pocket Billiards Principles

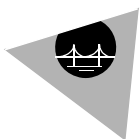
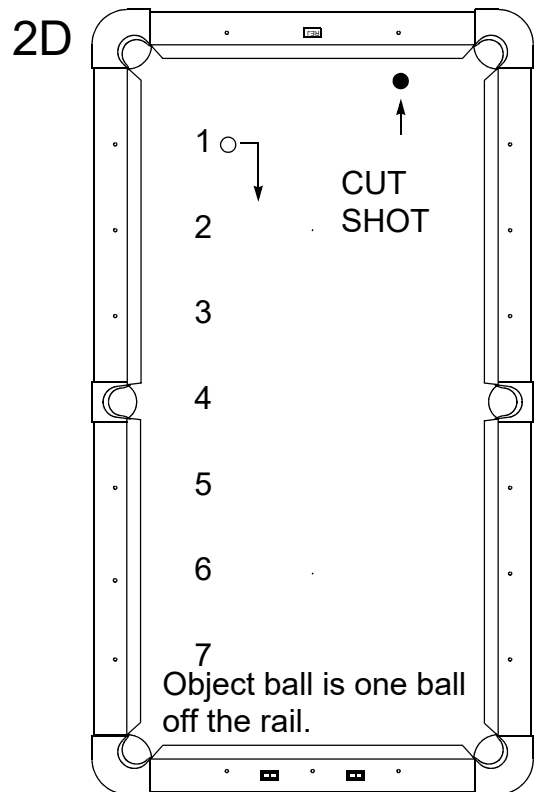
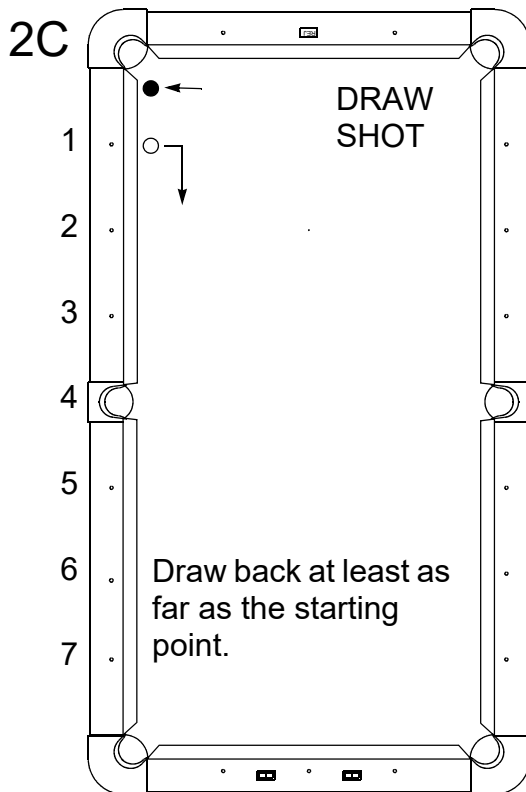
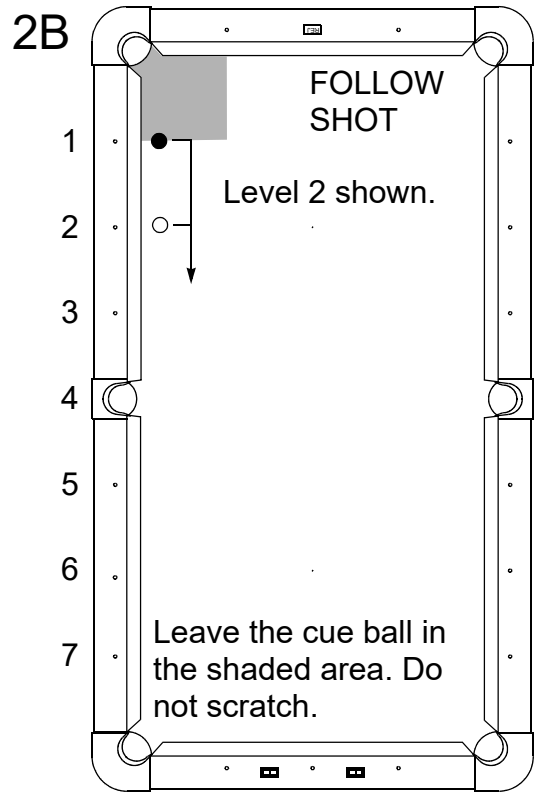
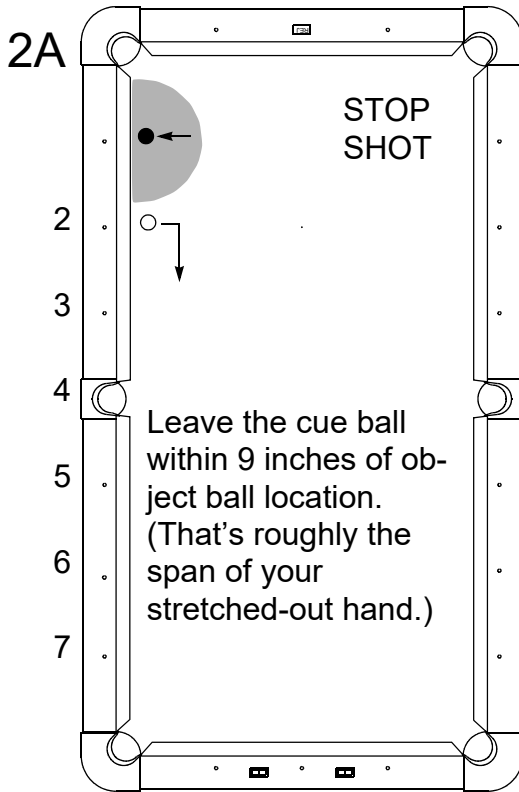




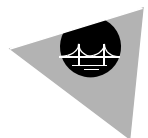
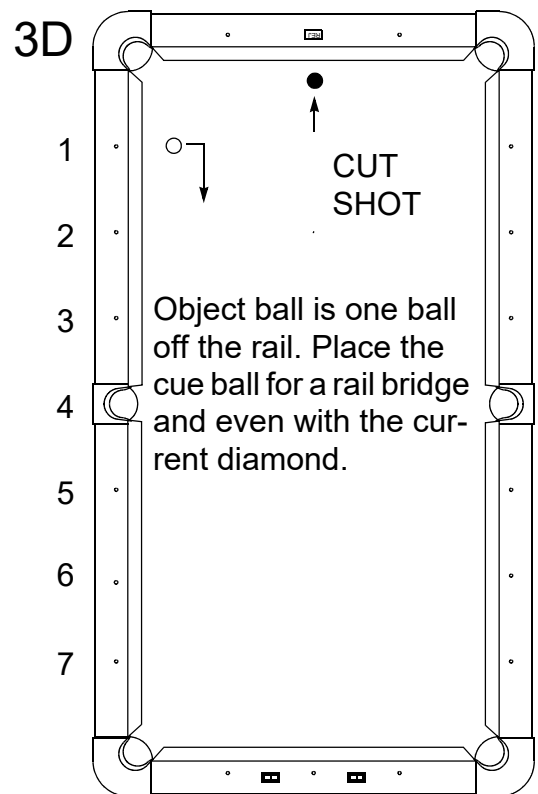
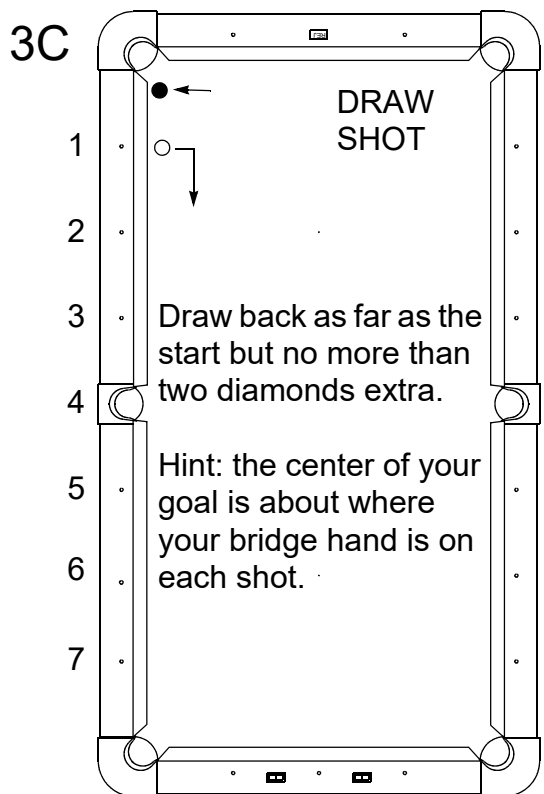
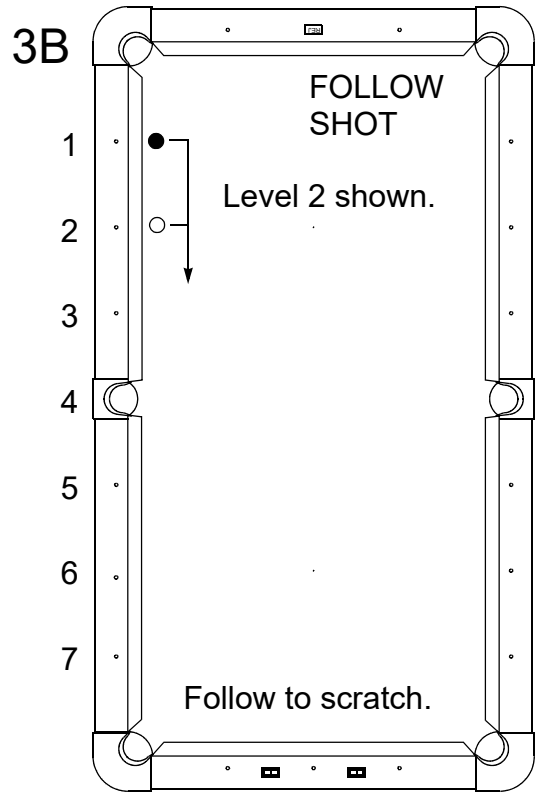
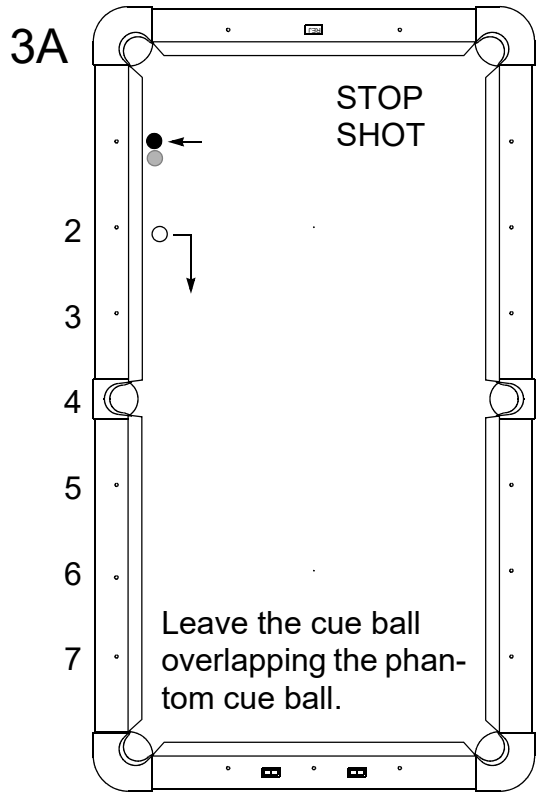
## Pocket Billiards Principles



# Pocket Billiards Principles

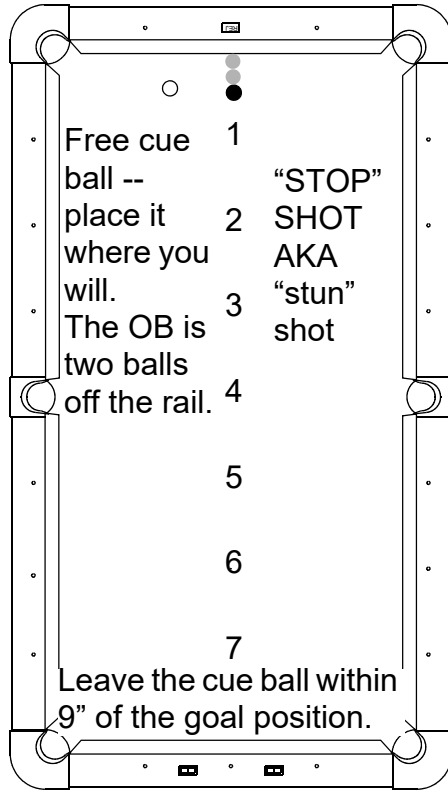


## Pocket Billiards Principles

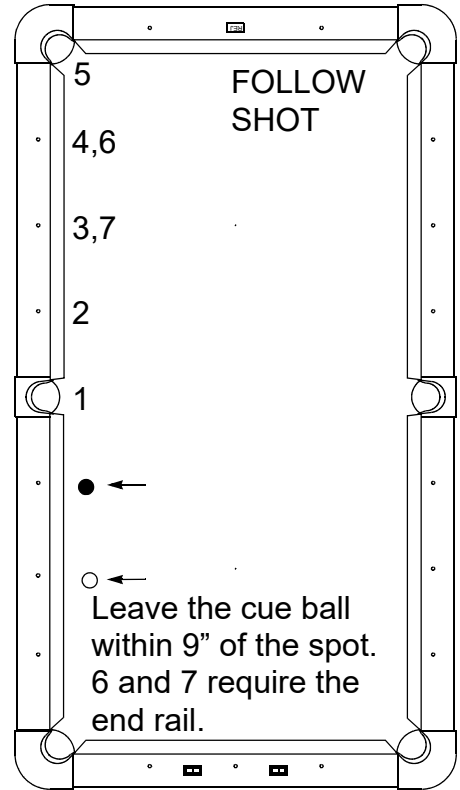


# Pocket Billiards Principles

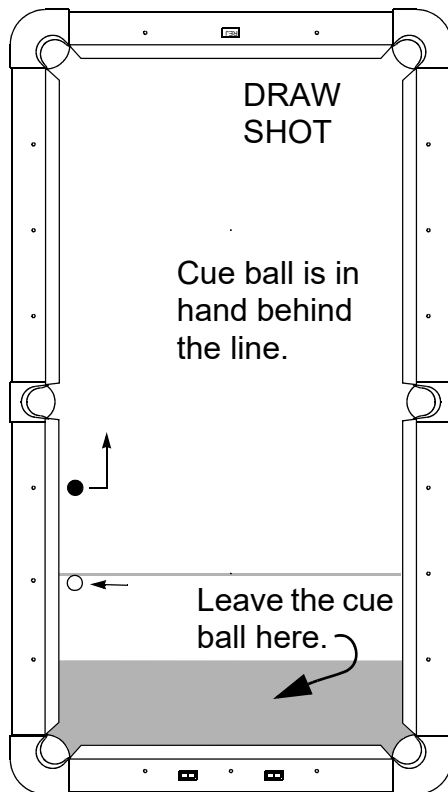
4A



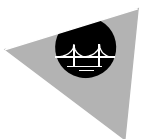
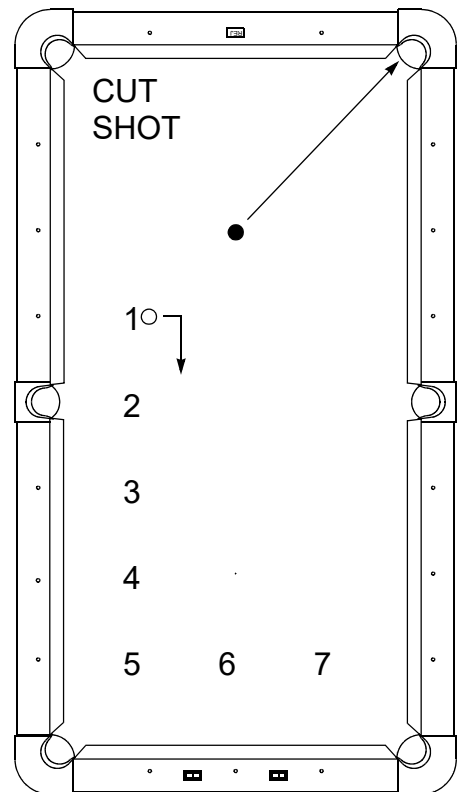
4B



4C

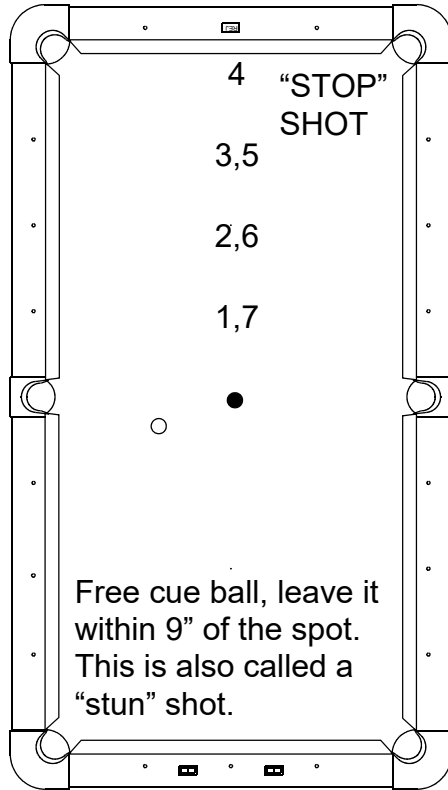


4D

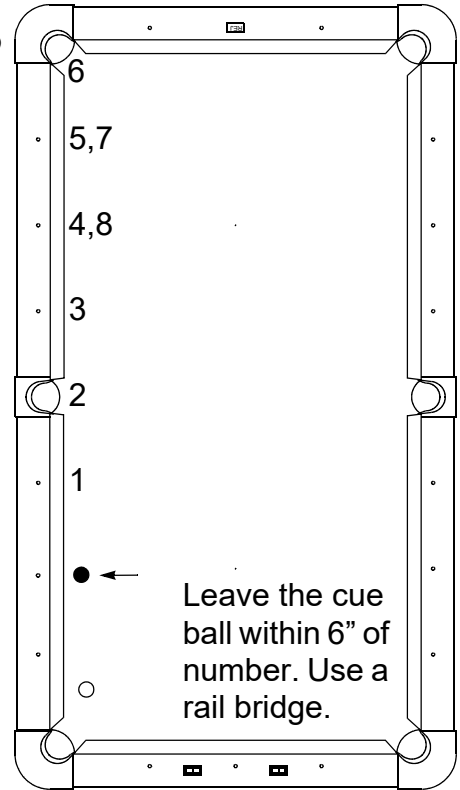


# Pocket Billiards Principles

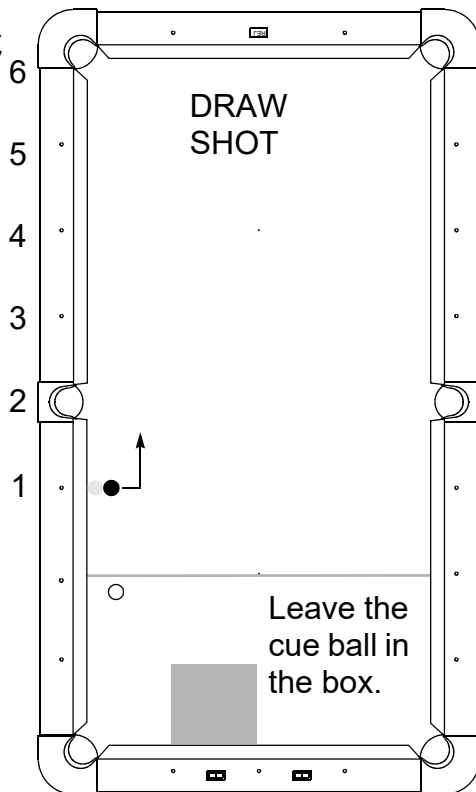
5A



5B



5C



5D

