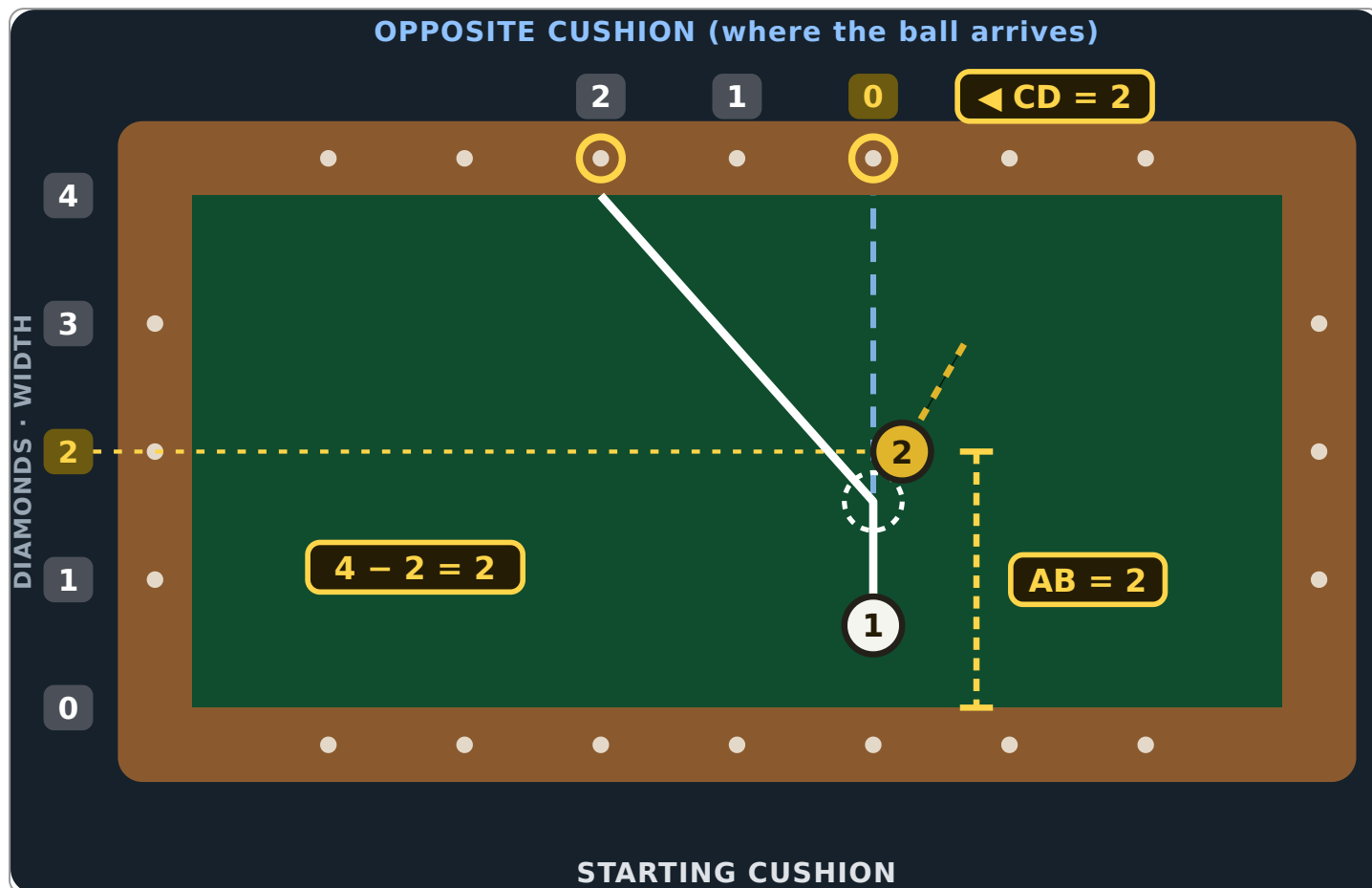


One-cushion system — $CD = 4 - AB$

Where ball 1 touches the **opposite cushion** after grazing ball 2, without side spin



Example: $AB = 2$ (ball 2 is 2 diamonds from the starting cushion), so $CD = 4 - 2 = 2$. Blue dashed line: the aim line, extended to the aimed point (the 0 of the count). Dashed circle: ball 1 at the moment of contact, at half-ball. Yellow dashed line on ball 2: it is pushed to the right. Yellow circles: the reference points counted on both scales.

THE FORMULA

$$CD = 4 - AB$$

Here **AB** is measured from the starting cushion to ball 2: it's this distance that sets the path left to ball 1 after contact. Diagram: $AB = 2$, so $CD = 4 - 2 = 2$.

THE THREE REFERENCE POINTS

- **AB**: how far ball 2 sits from the starting cushion, in diamonds (left-hand scale, level with ball 2).
- **The aimed point**: where the aim line, extended, would land on the opposite cushion — the 0 of the count, at the top.
- **CD**: the gap, in diamonds to the left, between that aimed point and where ball 1 actually touches the opposite cushion.

THE SAME STROKE, ALWAYS

Ball 1 aimed **at half-ball** on ball 2, hit **high**, with **no side spin at all**. Ball 2 goes right, ball 1 is sent back to the left of its path.

THREE POSITIONS

AB (diamonds)	3	2	1
CD (offset)	1	2	3

Always to the left of the aimed point. The closer ball 2 is to the starting cushion, the bigger the offset — and the more any unevenness in the hit shows up at arrival.

ADDING SIDE SPIN

$$CD = 4 + \text{doses} - AB$$

Side spin	None	1 dose	2 doses
CD for $AB = 2$	2	3	4

Each dose of side spin adds one diamond to the offset, at the same position.

Theoretical values: side spin, the cloth and the speed change the real trajectory. The presentation and the diagram are specific to this site.

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