TP B.16
CB-OB distance for follow clinging

supporting:
"The Illustrated Principles of Pool and Billiards"
http://billiards.colostate.edu
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ball radius: \( R := 1.125 \text{ in} \)  half of 2 1/4" diameter

normal roll tip height: \( x := 0.4 \cdot R \) from TP 4.2

Angle to tip contact point from vertical:
\[ \alpha := \cos \left( \frac{x}{R} \right) = 66.422^\circ \]

Distance CB travels (based on number of full revolutions "n") to have the tip contact point arrive at the OB contact point and create cling:
\[ d(n) := R \cdot \left( (\alpha + 90^\circ) + n \cdot 360^\circ \right) \quad n := 0 \ldots 2 \]

Number of "balls" between CB and OB to create cling condition:
\[ b(n) := d(n) / (2 \cdot R) \]

Results:
\[ n = \begin{bmatrix} 0 \\ 1 \\ 2 \end{bmatrix} \quad d(n) = \begin{bmatrix} 3.1 \\ 10.1 \\ 17.2 \end{bmatrix} \text{ in} \quad b(n) = \begin{bmatrix} 1.4 \\ 4.5 \\ 7.6 \end{bmatrix} \]

So when the CB is about 1.4 balls or 4.5 balls from the OB, don't expect typical follow action.