

The Two Quarters Problem

History and provenance

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The coin-rotation paradox

The equal-coin example is commonly called the *coin-rotation paradox*. It contrasts rotation relative to the table with rotation relative to the moving line joining the two centers.

Jack Murtagh's 2023 *Scientific American* article explains the example and describes a related question on the May 1982 SAT [1]. In that test's unequal-circle version, the listed answers omitted the correct count. That episode documents the trap's public history, not the first invention of the equal-quarter puzzle.

The version used here

Both quarters have the same radius, and their edges roll without slipping. The reference direction is fixed to the table, as the question's up/down description intends. Unequal circles, rolling inside another circle, or measuring orientation relative to the center line are different problems.

I did not establish the earliest appearance of the equal-coin riddle. It is safest to describe it by its established mathematical name rather than attach an unsupported inventor's name.

Sources

- [1] Jack Murtagh, The SAT Problem That Everybody Got Wrong, *Scientific American* (June 20, 2023).
<https://www.scientificamerican.com/article/the-sat-problem-that-everybody-got-wrong/>

Sources checked September 7, 2026. A documented appearance is not necessarily the earliest appearance.