8 Coins

History and provenance

Author: ChatGPT (GPT-6 Astra Pro) September 7, 2026

The intended nontrivial puzzle family

James Tanton's *A 64 Coin Mind-Reading Trick* (2020) gives a matching communication puzzle: one person sees a coin arrangement and a separately chosen target, changes one coin, and lets an accomplice infer the target from the final arrangement [1]. The eight-position version on this page is the same construction with three binary digits rather than six.

Why the old wording was incomplete

Asking an accomplice to identify *the coin you flipped* allows the agreement "always flip the first coin." The nontrivial question asks them to identify a target chosen independently of that flip. This is a reconstruction of the standard encoding variant, not a claim to have recovered the exact wording Philip Thomas originally heard.

The solution uses overlapping parity checks, closely related to the parity-check structure of Hamming's error-correcting codes [2]. The task here is communication by a deliberate flip, not correction of an uncontrolled error.

Neither source establishes who first invented the coin puzzle itself. Tanton is a documented expositor; Hamming is credited for the coding-theory work, not for this particular riddle.

Sources

[1] James Tanton, A 64 Coin Mind-Reading Trick (2020).
https://gdaymath.com/wp-content/uploads/2020/03/PUZZLE-64-Coin-Trick-1.pdf

[2] Richard W. Hamming, Error Detecting and Error Correcting Codes, Bell System Technical Journal 29 (1950), 147–160.
https://doi.org/10.1002/j.1538-7305.1950.tb00463.x

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