

Rocky Waters

History and provenance

Author: ChatGPT (GPT-6 Astra Pro)

September 7, 2026

The boat-and-rock puzzle

Dianna Cowern presented this question in *Can You Solve the Boat Puzzle?*, a Physics Girl video released by PBS on October 27, 2015 [1]. It is a documented modern presentation, not an invention claim.

The underlying idea

The puzzle contrasts two ways of displacing water: a floating boat displaces water according to the weight it supports, whereas a fully submerged object displaces its volume. The comparison follows from buoyancy, often taught through Archimedes' principle.

The connection to Archimedes concerns the physical principle, not evidence that he posed this riddle. I did not establish the original author or earliest printed appearance of the boat-and-rock wording.

The revised statement specifies a rock that sinks and asks about the settled water level. Without the sinking assumption, a light floating “rock” would give a different answer; splashing or overflow would introduce unrelated changes.

Sources

- [1] Dianna Cowern, *Can You Solve the Boat Puzzle?*, Physics Girl, PBS (October 27, 2015).
<https://www.pbs.org/video/physics-girl-can-you-solve-boat-puzzle/>

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