🧪 Test 15 — *Portal Acceleration vs Proximity to Zero*

Goal

Quantify whether **closer-to-zero portal entry** (the point where `log10 ratio = 0`) leads to a **stronger post-portal acceleration**—interpreted as higher multidimensional branching ("exoticness").

Concept

Each β-curve in `mu_phase_data.csv` crosses the horizontal axis at some slope ≈ s_0.
Immediately after this point, the fast-path ratio begins to rise.
We'll measure:

1. The **portal position** s_0 (where the sign flips).
2. The **acceleration magnitude** of `log10 ratio` just beyond s_0 (first derivative peak).

If your intuition holds, β with portal closer to 0 will show **larger acceleration** right after the fold.

Predictions

β	Expected portal slope s_0	Expected accel (Δ^2ratio)	Interpretation
8	≈ −0.12	small	early/loose entry → mild burst
9	≈ −0.05	medium	mid coherence
10	≈ 0	strong	tight coherence → large burst

🧱 What You'll Get

- A printed table showing each β, its crossover s_0, and the acceleration magnitude.
- Two plots:
  1. `mu_portal_accel_compare.png` — overlay of all β curves with portal markers.
  2. `mu_accel_vs_portal.png` — acceleration vs $|s_0|$ (to see if closer-to-zero ⇒ greater burst).