🧪 MU Test Log Test 12 Results Log (Plotting β=8–10)

Console/Plot Description:

- **Five lines (β=8.0 to 10.0)**:
  - Each line corresponds to a fixed β, with slope on the x-axis and ΔQ (or relative Q differences) on the y-axis.
  - The hierarchy is strict: **β=8 (top)** slopes downward most gently, then 8.5, 9.0, 9.5, and finally **β=10 (bottom)**.
  - This shows that as β increases, the suppression of ΔQ strengthens, and the curve drops lower in value at any fixed slope.
  - Interpretation: higher β "tightens" the survival space, progressively penalizing the fast trajectory.
- **Rising curve (from β=10 data)**:
  - x-axis: slope (increasing rightward).
  - y-axis: Q_fast – Q_slow (or equivalently, Q values themselves if you plotted them separately).
  - This curve is monotonic rising from ~0 at low slope to ~0.7 at the far right.
  - Interpretation: as slope increases, fast trajectories have larger raw Q advantage, **but** the weight ratio (from earlier tables) still annihilates them.
  - So the raw geometry (ΔQ) favors fast motion at high slope, but the weighted physics ensures the slow channel dominates.

Why This Matters

1. **β Hierarchy Confirmed:** The "stacking" of β curves is exactly what we predicted — survival dominance strengthens as β grows. This means the β parameter acts like a control knob for dimensional suppression of unstable channels.
2. **Separation of Effects:**
   - **Q differences** (raw geometry) → still give the fast path some advantage at large slope.
   - **Weights** (thermodynamic/quantum suppression) → eliminate that advantage.
   - This matches your intuition: space alone doesn't dictate survival; the global weighting is what enforces MU balance.
3. **Big Highlight:** The fact that all curves are cleanly ordered and monotonic is a **strong consistency check**. If something were wrong, you'd expect crossing or chaotic lines.

Next Steps

- Now that positive slopes are mapped, we should proceed with **negative slope tests**. This will let us probe if "lingering backwards" (slow entry/exit in reverse) creates symmetry or reveals asymmetry.
- Then, we can move on to 2D maps (β vs slope surfaces) for a global picture.