Which Notes Were Already Down?

For each event window, find which keys were held at the moment the sostenuto pedal was depressed. Those keys and only those are captured.

Rule: $K(t_{ped})$ = {all keys with press ≤ t_{ped} and release > t_{ped}}. A key released *before* the pedal goes down is not captured; a key pressed *after* is not captured either.

A · EVENT WINDOWS — FIND THE CAPTURED SET

1

Key	Pressed	Released
A3	0.0	2.5
B3	1.0	3.0

Sostenuto pedal down at t = 1.5

Captured set K(1.5) = _____

▲ A3, B3

2

Key	Pressed	Released
C4	0.0	3.0
D4	0.5	3.5

Sostenuto pedal down at t = 2.0

Captured set K(2.0) = _____

▲ C4, D4

3

Key	Pressed	Released
E4	0.0	1.0
F4	1.5	3.0

Sostenuto pedal down at t = 0.3

Captured set K(0.3) = _____

▲ E4

4

Key	Pressed	Released
G3	0.0	0.8

Sostenuto pedal down at t = 1.5

Captured set K(1.5) = _____

▲ (empty set — nothing held)

5

Key	Pressed	Released
C3	0.0	4.0
E4	0.5	4.0
G4	2.0	4.0

Sostenuto pedal down at t = 1.0

Captured set K(1.0) = _____

▲ C3, E4

6

Key	Pressed	Released
F3	0.0	1.0
A4	0.3	1.5

Sostenuto pedal down at t = 0.5

Captured set K(0.5) = _____

▲ A4, F3

B · FAULTY ORDERS — FIND AND REPAIR THE TIMING MISTAKE

F1

Key	Pressed	Released
D3	0.0	0.5

Sostenuto pedal down at t = 1.0

⚠ K(1.0) = (empty). *D3 released at t=0.5, pedal down at t=1.0 — D3 already gone, nothing captured.*

Repair: _____

▲ Press sostenuto pedal at or before t = 0.5, while D3 is still held.

F2

Key	Pressed	Released
C4	0.0	1.0

Sostenuto pedal down at t = 1.5

⚠ K(1.5) = (empty). *C4 released at t=1.0, pedal down at t=1.5 — C4 already released, nothing captured.*

Repair: _____

▲ Keep C4 held until after the sostenuto pedal is depressed (hold past t = 1.5).

Teacher rubric: Full credit requires naming every captured note correctly (order does not matter). For repairs, any phrasing that identifies the core fix (press pedal while key is held, or keep key held past pedal-down) is accepted.

Answer key: Items: 1={A3,B3} 2={C4,D4} 3={E4} 4={empty} 5={C3,E4} 6={F3,A4}. Faults: F1 pedal at t≤0.5; F2 hold C4 past t=1.5.

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