

# Quiz 1: unsafe transactions and ABA

- Sketch a simple strictly serializable TM implementation that exhibits histories with
  - ✓ Division-by-zero exception
  - ✓ Infinite loops
  - ✓ Hint: take a “simplified” version of DSTM and run it with T1, T2 described in slides 34 and 35
- Is DSTM subject to the ABA problem?

# Quiz 2: read visibility and validation

- Why does not the “visibility-validation” theorem hold for **multi-versioned** TMS maintaining multiple versions of each object
- Why does not the theorem hold for **strictly serializable** TMs?

# Quiz 3: TM progress and liveness

- Why “no correct transaction ever aborts” is not a **liveness** property?
- Prove correctness of the consensus algorithm using OF-consensus