Problem 1

1a, A = 3;  
1b, B = 0;

2a, print A;  
2b, print B;

Which sequences are Seg. Consistent?

1a, 1b, 2a, 2b
1a, 2a, 1b, 2b
1a, 2a, 2b, 1b
1b, 1a, 2b, 2a
Problem 1.

RISC processor, 200 MHz, 2 IPC
20% instructions -Store- ; 8 bytes of data.

Q: How many proc. will a 1GB/s bus support? Without saturation. Assume a write-through cache.

Tc = 5 ms, 1 instr. 2.5 ms, 12.5 ms store instruction, 2 bytes/ns

\[
\frac{8 \text{ byte}}{12.5 \text{ ms}} > \frac{1 \text{ byte}}{\text{ms}}
\]
Problem 2

\[ p_2 \]

while (\( A = 0 \))
\[
\begin{align*}
B & = 1; \\
\text{print } A;
\end{align*}
\]

while (\( B = 0 \))

Show how not preserving write atomicity violates sequential consistency.