Following the processor instructions, the processor moves right, alternating between state 0 (on odd-numbered cells) and state 1 (on even-numbered cells).
If the processor reaches the end of the sequence (marked by a space) in state 0, then there was an even number of a's — write "Y" in the cell and HALT.
If the processor reaches the end of the sequence (marked by a space) in state 1,

1. Initially, the processor is positioned at the left end of the sequence in state 0.

then there was an odd number of a's — write "N" in the cell and HALT. processor instructions: processor if state = 0 and cell = "a", move right and set state = 1. state = 0if state = 0 and cell = "", write "Y" and HALT. if state = 1 and cell = "a", move right and set state = 0.

if state = 1 and cell = "", write "N" and HALT.