Design a Turing Machine that deletes the 0s from a given binary string. Binary string will start after the first blank (#) and initially, the tape head is over the first blank after the input (underlined symbol shows tape head position). Write your TM as a **state diagram**. Consider the following examples carefully. You may use additional symbols if necessary.

$\#0011001010111011\underline{\#} \vdash*_M \#111111111\underline{\#}$

$\#0010010\underline{\#} \vdash*_M \#11\underline{\#}$

$\#0000000\underline{\#} \vdash*_M \#\underline{\#}$

IMPORTANT: You must do this homework **by hand** and **submit it using the box in the secreteriat**.

Solution: