10   Turing Machines

- We still have..

  - a set of states
  - some final states

- The input alphabet is a subset of the input alphabet

- We have a simbol for the space: $\square$.

  - Not really different from λ

- This is deterministic

- **You don't have to process all the input**

  - All you have to do is end up in the final state

- Imagine we have a tape, and some symbol a. The read-write head starts as some state q_0.

  - Now we write over a to a value d, we now are at q_1

- Now suppose the input abb.

  1. Start at a (q_0).
  2. Move to b (q_1)
  3. Move to b (q_1)

- Example $abcd \implies abq_1c \vdash abeq_2d$

  - A way of describing what we go from to.