

Very Important Terminology

- Let M be a Turing machine.
- M **accepts** a string w if it returns true on w .
- M **rejects** a string w if it returns false on w .
- M **loops infinitely** (or just **loops**) on a string w if when run on w it neither returns true nor returns false.
- M **does not accept w** if it either rejects w or loops on w .
- M **does not reject w** if it either accepts w or loops on w .
- M **halts on w** if it accepts w or rejects w .

