

Argue that each of the following Turing machine models are equivalent in power to the standard Turing machine with a single two-way infinite tape.

1. Turing machine with *one-way infinite tape*
2. Turing machine with *infinite-size 2d-grids/paper*
3. Turing machine with *multiple heads*
4. Turing machine with *two stacks*
5. Turing machine with *no empty cell symbol* ( $\square$ ) and only binary alphabet ( $0$  and  $1$ )
6. Turing machine with *two registers*, each with left/right shift functions and increment
7. Turing machine with *three counters*, each with increment and decrement