

3. TM R is a decider for L .
it works by:

1. R simulating M on tape 1.
2. Tape 2 has the # of steps, t .
3. for each step in the simulation of M on tape 1, a step on tape 2 is crossed out with a Blank symbol.
4. if the t 's are all crossed out on tape 2 and M on tape 1 still hasn't accepted, reject.
~~reject~~
5. if at any point M accepts before all t 's are Blanked out accept.