

Handout 9: Problem Set 9

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Due by Monday, Jan 6th, 2014, 4pm.

- 1 Is it decidable if a Turing machine enters a specified state q ?
- 2 Is it decidable for a Turing machine M and a regular set R if $L(M) = R$?
Hint: Answer may depend on R
- 3 Outline a proof that it is undecidable if a computer program will eventually halt. Assume the program is running on a computer with potentially infinite memory.