## CS 3100 - Models of Computation – Fall 2010

## August 24, 2010

## Notes 1, Handed out: August 24, 2010

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• Tape, tape head, memory, transitions
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• JFLAP illustration
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• Strings accepted, language recognized
• Examples from book
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• Alphabet, language, language of an FA, unary language
• Length of a string, empty string, "epsilon" $(\varepsilon)$
• —• Representation in terms of $Q, \Sigma, q_0, T$ (accepting states), $\delta$
• Example 1.6
• —
• When do FA exist:
- Balanced parantheses
- Parity
- mod
– Is legal ASCII

• General introduction

- Is legal 10-digit phone number
- num 0's > num 1's
- $-\,$  of the form n zeros, then n ones, then n twos
- Is legal 10-digit phone number with a one-bit parity error somewhere
- Scan LSB-first and value is divisible evenly by  $3\,$