



Fall-2024 CS-Department
Assignment 3

Due date: DEC 11, 2024

Course Code: CS301	Course Name: Theory of Automata
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Draw turing machines for the following cases:

1. $f(x,y) = \begin{cases} x-y & , \text{if } x \geq y \\ x+y & , \text{if } x < y \end{cases}$
2. Design a turing machine to perform $(n \text{ MOD } 2)$ where $(n=\text{any number})$
3. Design a Turing Machine for language $L=\{a^n b^m c^n d^m \mid n \leq m\}$. Defined over alphabet $=a,b,c,d$.