Tutorial 2

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1. Write down a R.E. over {0, 1} such that no. of 1's are divisible by 4.
2. Write down a regular expression for language L over {a, b, c} such that every string in L contains a substring ccc.
3. Write down a R.E. for the language L={w: | w | mod 5=0}, $w \in (a,b)^*$ }
4. Write down a R.E. over alphabet $\sum = \{a,b,c\}$ containing at least one *a* and at least one *b*.
5. Write the Regular expression for the language of all even length strings defined over $\sum = \{a,b\}$.
6. Write the Regular expression for the language of all even length strings defined over $\sum = \{a,b\}$.
7. Write the Regular expression for the language $L = \{a^n b^m \mid n,m \geq 1\}$ over $\sum = \{a,b\}$.
8. Write the Regular expression for the language $L = \{a^n b^m \mid n,m \geq 0\}$ over $\sum = \{a,b\}$.
9. Write down a R.E. over {0, 1} whose fifth symbol from the right end is 1.

9. Design the DFA for the problem given in Q1-8.