

DFA examples

1. Design a DFA that accepts the language of strings that starts with '**r**' and ends with '**pq**' over the alphabet $\{p,q,r\}$.
2. Design a DFA for the following language, $L = \{ \text{starts with '**mn**' and contains '**xm**' and ends with '**x**' } \mid \Sigma = \{m,n,x\}$
3. Design a DFA for the following language, $L = \{ w \mid w \text{ starts with "**ab**" and contains "**bba**" and ends with "**bb**" } \mid \Sigma = \{a, b\}$
4. Design a DFA for the following language, $L = \{ \text{starts with '**c**' and contains '**abc**' or '**bca**' and ends with '**b**' } \mid \Sigma = \{a,b,c\}$
5. Design a DFA for the following language, $L = \{ \text{contains '**zyx**' and ends with '**zy**' } \mid \Sigma = \{x,y,z\}$
6. Design a DFA for the following language, $L = \{ \text{starts with '**0**' and contains '**110**' and ends with '**01**' } \mid \Sigma = \{0,1\}$
7. Design a DFA for the following language, $L = \{ \text{starts with '**gh**' and contains '**kgh**' and ends with '**gh**' } \mid \Sigma = \{g,h,k\}$
8. Design a DFA for the following language, $L = \{ \text{starts with '**11**' and contains either '**010**' or '**101**' } \mid \Sigma = \{0,1\}$