Construct DFAs for the given regular expressions:

a) \((a \mid (bc)^*d)^+\)

b) \((aa \mid b)^+ (a \mid bb)^+\)

c) \(((c \mid a)b^*)^+\)
2. Construct regular expressions corresponding to the following DFAs:

(a) \[ (ac^*a | ac^*) | (ca^*c | ca^*) \]

(b) \[ (a \cdot b \cdot c^+) \]