1.

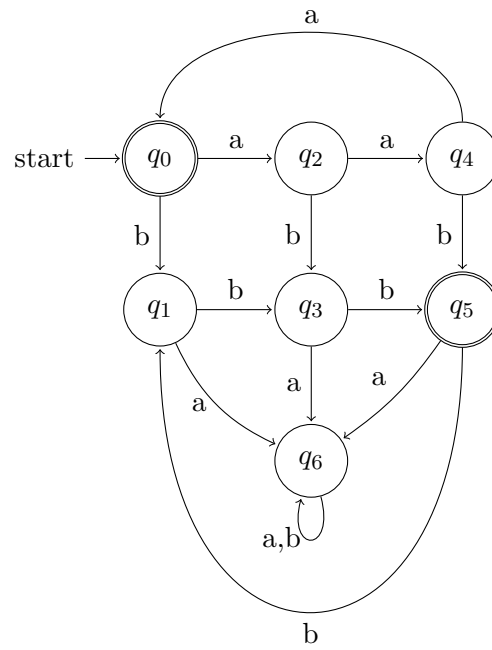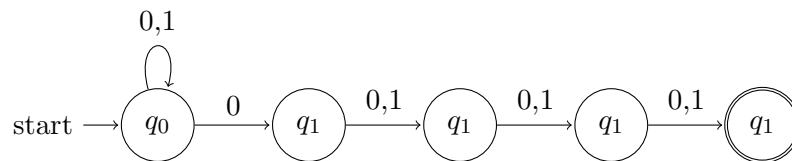**2.**   this language accepts a binary string that has a 0 in the 8's place

$(0|1)^*0(0|1)(0|1)(0|1)$

3.