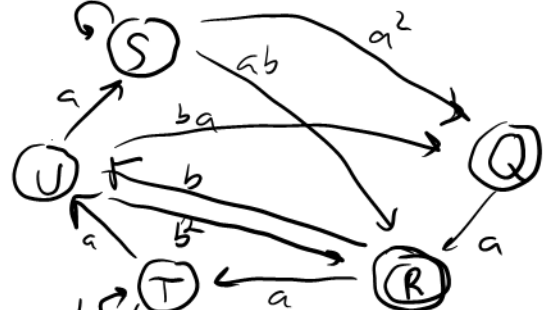
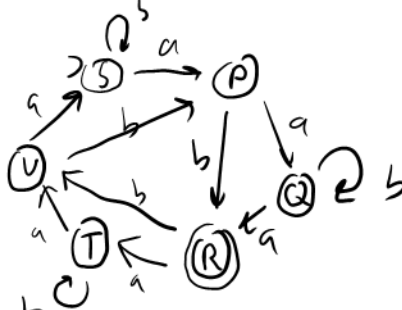


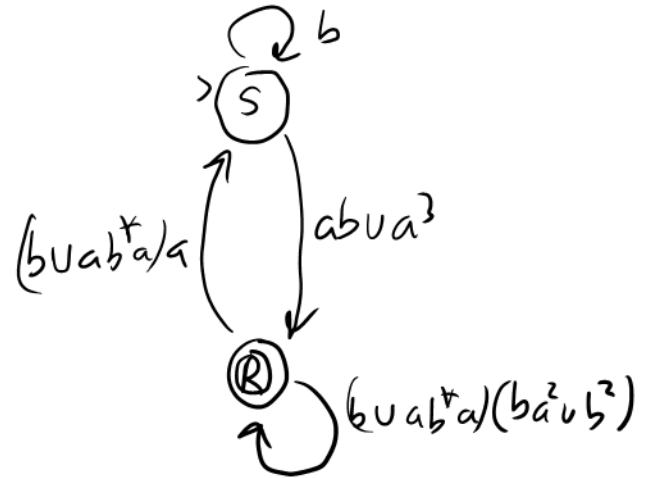
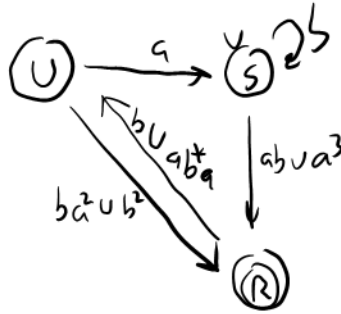
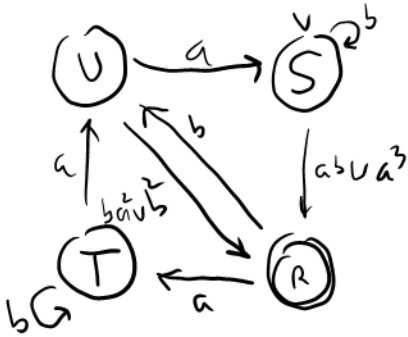


1. (5 pts) Given the transition table. Draw the DFA with start state S and single terminal state R .

	a	b
S	U	S
P	S	R
Q	P	Q
R	Q	U
T	R	T
U	T	P



Find the expression graph obtained by eliminating the states P, Q, T and U in that order.



2. (5 pts) Draw the expression graph with start state X , final state Z , and transitions

$$\delta(X, a^2) = X; \delta(X, bab) = Z; \delta(Z, aba) = X; \delta(Z, b^2) = Z;$$

Find a regular expression for the language.

