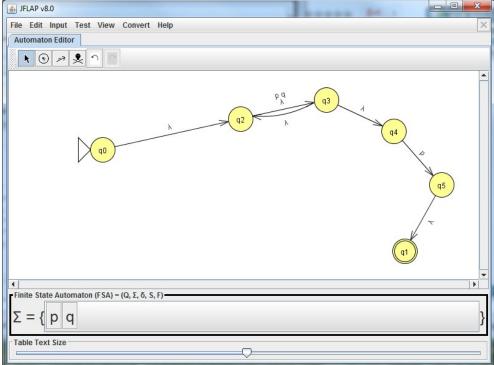
We can use JFLAP to explore Regular expression Identities by converting the Regular expression to a DFA and to demonstrate equivalence of two forms.

For a regular expression R, a partial list of identities follow. $R^*R^* = R^*$ $(R^*)^* = R^*$ RR^*R^*R $(PQ)^*P = P(QP)^*$

Consider the form (PQ)*P = P(QP)*, without loss of generality we use the terminals p and q

🕌 JFLAP v8.0	
File Edit Input Convert Help	×
Regular Expression Editor	
0	
Expression: (pq)*p	
•	
Regular Expression = (Σ, E)	
$\Sigma = \{ p q \}$	}
Table Text Size	

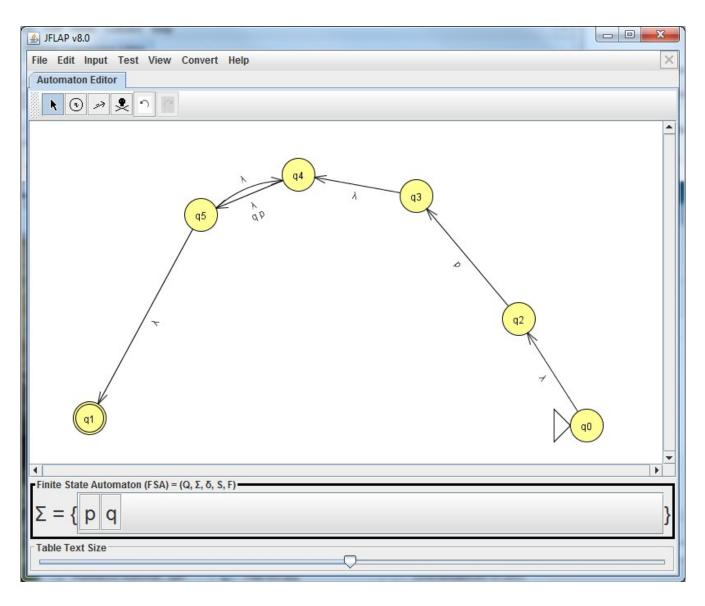
Convert the regular expression to a FA, step to completion and export the FSA. The result should be.



Next lets demonstrate the equivalence to p(q p)*

الله JFLAP v8.0	
File Edit Input Convert Help	×
Regular Expression Editor	
Expression: p(qp)*	_
	•
Regular Expression = (Σ, E)	
Σ = { p q	}
Table Text Size	

Convert the regular expression to a FA, step to completion and export the FSA. The result should be.



Examine the states and the guards on the transitions, are the machines the same?