

# COMP23

Lexical	FSA	REs
Identifier	<pre> graph LR     S1((State 1)) -- "[a-z,A-Z, _]" --&gt; S2(((State 2)))     S2 -- "[a-z,A-Z,0-9, _]" --&gt; S2     style S2 stroke-width:2px     </pre>	<code>[a-z,A-Z,'_']. [a-z,A-Z,0-9,'_']*</code>
Number	<pre> graph LR     S1((State 1)) -- "-" --&gt; S2((State 2))     S2 -- "[0-9]" --&gt; S3(((State 3)))     S3 -- "[0-9]" --&gt; S3     S3 -- "." --&gt; S4((State 4))     S4 -- "[0-9]" --&gt; S5(((State 5)))     S5 -- "[0-9]" --&gt; S5     S1 -- "[0-9]" --&gt; S3     style S3 stroke-width:2px     style S5 stroke-width:2px     </pre>	<code>(-   λ).[0-9]<sup>+</sup>.('!.[0-9]<sup>+</sup>  λ)</code>
String	<pre> graph LR     S1((State 1)) -- "\"" --&gt; S2((State 2))     S2 -- "ch" --&gt; S2     S2 -- "\"" --&gt; S3(((State 3)))     style S3 stroke-width:2px     </pre>	<code>'"'. [^\n"]* .'"'</code> <code>[^\n]"any character except newline and "</code>
Comments	<pre> graph LR     S1((State 1)) -- "#" --&gt; S2((State 2))     S2 -- "#" --&gt; S3((State 3))     S3 -- "ch" --&gt; S3     S3 -- "#" --&gt; S4((State 4))     S4 -- "#" --&gt; S5(((State 5)))     S3 -- "\n" --&gt; S5     style S5 stroke-width:2px     </pre>	<code>##.[^\n]*.(## '\n')</code> <code>[*#n]"any character except newline and #"</code>