

SICPy §0

Khooi Xin Zhe, Ang Jun Jie

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A SICPy¹ program is a *module*, defined using Backus-Naur Form² as follows:

SICPy §0

<i>module</i>	::=	<i>statement ...</i>	statement sequence
<i>statement</i>	::=	<i>expression</i>	expression statement
<i>expression</i>	::=	<i>number</i>	primitive number expression
		<u>True</u> <u>False</u>	primitive boolean expression
		<i>string</i>	primitive string expression
		<i>expression binary-operator expression</i>	binary operator combination
		<i>unary-operator expression</i>	unary operator combination
		(<i>expression</i>)	parenthesised expression
<i>binary-operator</i>	::=	+ - * / % ==	
		> < >= <= and or	
<i>unary-operator</i>	::=	not + -	

¹SICPy is an adaptation of Source - the official language of the textbook Structure and Interpretation of Computer Programs, JavaScript Adaptation.

²We adopt Henry Ledgard's BNF variant that he described in A human engineered variant of BNF, ACM SIGPLAN Notices, Volume 15 Issue 10, October 1980, Pages 57-62. In our grammars, we bold and underline keywords, [] for optional syntaxes, italics for syntactic variables, ϵ for nothing, $x|y$ for x or y , and $x...$ for zero or more repetitions of x .