

# THE ORIGINAL GRAMMAR

## Without EBNF, |, {}, and Recursion

Also Includes Additional States A, J, C, H, and B

<prog>	→	<b>program &lt;identifier&gt; ; var &lt;dec-list&gt; begin &lt;stat-list&gt; end.</b>
<identifier>	→	<letter> A
A	→	<letter> A
A	→	<digit> A
A	→	$\lambda$
<dec-list>	→	<dec> : <type> ;
<dec>	→	<identifier> J
J	→	, <dec>
J	→	$\lambda$
<type>	→	<b>integer</b>
<stat-list>	→	<stat> C
C	→	<stat-list>
C	→	$\lambda$
<stat>	→	<write>
<stat>	→	<assign>
<write>	→	<b>display ( H ) ;</b>
H	→	"value=" , <identifier>
H	→	<identifier>
<assign>	→	<identifier> = <expr> ;
<expr>	→	<term> <expr>'
<expr>'	→	+ <term> <expr>'
<expr>'	→	- <term> <expr>'
<expr>'	→	$\lambda$
<term>	→	<factor> <term>'
<term>'	→	* <factor> <term>'
<term>'	→	/ <factor> <term>'
<term>'	→	$\lambda$
<factor>	→	( <expr> )
<factor>	→	<identifier>

<factor>	→	<number>
<number>	→	<sign> <digit> B
B	→	<digit> B
B	→	λ
<sign>	→	+
<sign>	→	-
<sign>	→	λ
<digit>	→	0
<digit>	→	1
<digit>	→	2
<digit>	→	3
<digit>	→	4
<digit>	→	5
<digit>	→	6
<digit>	→	7
<digit>	→	8
<digit>	→	9
<letter>	→	p
<letter>	→	q
<letter>	→	r
<letter>	→	s