

## spec2-2

<program>  $\Rightarrow$  <function>

<function>  $\Rightarrow$  <typename> <identifier> ( <argument-list> ) <block>

<argument-list>  $\Rightarrow$  <argument-list> , <argument>

<argument-list>  $\Rightarrow$   $\epsilon$

<argument>  $\Rightarrow$  <typename> <identifier>

<argument>  $\Rightarrow$  <void>

<statement-list>  $\Rightarrow$  <statement-list> <statement>

<statement-list>  $\Rightarrow$   $\epsilon$

<statement>  $\Rightarrow$  <expression> ;

<statement>  $\Rightarrow$  <typename> <variable-list> ;

<statement>  $\Rightarrow$  <if-statement>

<statement>  $\Rightarrow$  <while-statement>

<while-statement>  $\Rightarrow$  while ( <expression> ) <block>

<if-statement>  $\Rightarrow$  if ( <expression> ) <block>

<block>  $\Rightarrow$  <statement>

<block>  $\Rightarrow$  { <statement-list> }

<variable-list>  $\Rightarrow$  <identifier>

<variable-list>  $\Rightarrow$  <variable-list> , <identifier>

<expression>  $\Rightarrow$  <term>

<expression>  $\Rightarrow$  ( <expression> )

<expression>  $\Rightarrow$  <expression> <operator> <term>

<typename>  $\Rightarrow$  <int>

<typename>  $\Rightarrow$  <double>

<operator>  $\Rightarrow$  +

<operator>  $\Rightarrow$  -

<operator>  $\Rightarrow$  \*

<operator>  $\Rightarrow$  /

<operator>  $\Rightarrow$  =

<operator>  $\Rightarrow$  ==

<operator>  $\Rightarrow$  >

<operator>  $\Rightarrow$  <

<term>  $\Rightarrow$  <integer>

<term>  $\Rightarrow$  <real>

<term>  $\Rightarrow$  <identifier>