

1.  $\langle C \rangle \rightarrow \langle V \rangle = \langle D \rangle \mid \langle V \rangle$   
 $\langle V \rangle \rightarrow x \mid y \mid z$   
 $\langle D \rangle \rightarrow \langle E \rangle ? \langle D \rangle : \langle D \rangle \mid \langle E \rangle$   
 $\langle E \rangle \rightarrow \langle E \rangle \mid \langle F \rangle \mid \langle F \rangle$   
 $\langle F \rangle \rightarrow \langle F \rangle \&\& \langle G \rangle \mid \langle G \rangle$   
 $\langle G \rangle \rightarrow !\langle G \rangle \mid \langle H \rangle$   
 $\langle H \rangle \rightarrow (\langle H \rangle) \mid \langle I \rangle$   
 $\langle I \rangle \rightarrow \text{true} \mid \text{false}$

2. Static Semantic Attributes:

type	=	{integer, double}	(synthesized)
typetable( $\langle \text{var} \rangle$ )	=	{integer, double, error}	(inherited)
inittable( $\langle \text{var} \rangle$ )	=	{true, false, error}	(inherited)
typebinding	=	( $\langle \text{var} \rangle$ , {integer, double})	(synthesized)
initialized	=	( $\langle \text{var} \rangle$ , {true, false})	(synthesized)

Attribute Rules:

```
<start1>.type :=
<start1>.typetable(<var>) :=
<start1>.inittable(<var>) :=
<start1>.typebinding :=
<start1>.initialized :=
```

```
<start2>.type :=
<start2>.typetable(<var>) :=
<start2>.inittable(<var>) :=
<start2>.typebinding :=
<start2>.initialized :=
```

```
<stmt1>.type :=
<stmt1>.typetable(<var>) :=
<stmt1>.inittable(<var>) :=
<stmt1>.typebinding :=
<stmt1>.initialized :=
```

```
<stmt2>.type :=
<stmt2>.typetable(<var>) :=
<stmt2>.inittable(<var>) :=
<stmt2>.typebinding :=
<stmt2>.initialized :=
```

```
<declare1>.type :=
<declare1>.typetable(<var>) :=
<declare1>.inittable(<var>) :=
```

```

<declare1>.typebinding :=
<declare1>.initialized :=

<type1>.type :=
<type1>.typetable(<var>) :=
<type1>.inittable(<var>) :=
<type1>.typebinding :=
<type1>.initialized :=

<type2>.type :=
<type2>.typetable(<var>) :=
<type2>.inittable(<var>) :=
<type2>.typebinding :=
<type2>.initialized :=

<assign1>.type :=
<assign1>.typetable(<var>) :=
<assign1>.inittable(<var>) :=
<assign1>.typebinding :=
<assign1>.initialized :=

<expression1>.type :=
<expression1>.typetable(<var>) :=
<expression1>.inittable(<var>) :=
<expression1>.typebinding :=
<expression1>.initialized :=

<expression2>.type :=
<expression2>.typetable(<var>) :=
<expression2>.inittable(<var>) :=
<expression2>.typebinding :=
<expression2>.initialized :=

<value1>.type :=
<value1>.typetable(<var>) :=
<value1>.inittable(<var>) :=
<value1>.typebinding :=
<value1>.initialized :=

<value2>.type :=
<value2>.typetable(<var>) :=
<value2>.inittable(<var>) :=
<value2>.typebinding :=
<value2>.initialized :=

<value3>.type :=
<value3>.typetable(<var>) :=
<value3>.inittable(<var>) :=
<value3>.typebinding :=
<value3>.initialized :=

```

Table 1: Attribute Rules

4. asdf

5. asdf