### 3.1.1

```
float limitedSquare ( x ) float x ;
{
   /* returns x-squared, but never more than 100 */
   return ( x <= - 10.0 || x >= 10.0 ) ? 100 : x * x ;
}
```

**lexemes:**

| | |
|---|---|
| keyword | float |
| id | limitedSquare |
| token | ( |
| id | x |
| token | ) |
| keyword | float |
| id | x |
| token | ; |
| token | { |
| token | /* |
| token | */ |
| keyword | return |
| token | ( |
| id | x |
| relOp | <= |
| unary | - |
| num | 10.0 |
| boolOp | \|\| |
| id | x |
| relOp | >= |
| num | 10.0 |
| token | ) |
| ternaryOp | ? |
| num | 100 |
| ternaryOp | : |
| id | x |
| mulOp | * |
| id | x |

**3.1.2**

```
 Here is a photo of < B > my house < / B > :
< P > < IMG SRC = " house.gif " > < BR >
See < A HREF = " morePix.html " > More Pictures < / A > if you
liked that one. < P >
```

**Lexemes are listed on the following page.**

**lexemes:**

| | |
|---|---|
| id | Here is a photo of |
| token | < |
| keyword | B |
| token | > |
| id | my house |
| token | < |
| token | / |
| keyword | B |
| token | > |
| id | : |
| token | < |
| keyword | P |
| token | > |
| token | < |
| keyword | IMG |
| keyword | SRC |
| assign | = |
| token | " |
| id | house.gif |
| token | " |
| token | > |
| token | < |
| keyword | BR |
| token | > |
| id | See |
| token | < |
| keyword | A |
| keyword | HREF |
| assign | = |
| token | " |
| id | morePix.html |
| token | " |
| token | > |
| id | More Pictures |
| token | < |
| token | / |
| keyword | A |
| token | > |
| id | if you liked that one. |
| token | < |
| keyword | P |
| token | > |

**3.3.5a**

| | | |
|---|---|---|
| $A$ | $\rightarrow$ | a |
| $E$ | $\rightarrow$ | e |
| $I$ | $\rightarrow$ | i |
| $O$ | $\rightarrow$ | o |
| $U$ | $\rightarrow$ | u |
| *other* | $\rightarrow$ | b\|c\|d\|f\|g\|h\|j\|k\|l\|m\|n\|p\|q\|r\|s\|t\|v\|w\|x\|y\|z |
| *alpha* | $\rightarrow$ | $(A \cup E \cup I \cup O \cup U \cup other)^*$ |
| *string* | $\rightarrow$ | $alpha^*\ A^+\ other^*\ E^+\ other^*\ I^+\ other^*\ O^+\ other^*\ U^+\ alpha^*$ |