**Algorithm readStringOfCharacters (String expression)**

**//read a string of characters from a**

**//single line of input into a queue**

**aQueue.createQueue()**

**while (not end of line)**

**{**

**Read a new character ch**

**aQueue.enqueue(ch)**

**}**

**Algorithm processingCharactersFromQueue**

**//convert digits in a queue aQueue into a**

**//decimal integer n**

**//get first digit, ignoring any leading blanks**

**do**

**{**

**aQueue.dequeue(ch)**

**}while (ch is blank)**

**//compute n from digits in queue**

**n = 0**

**done = false**

**do**

**{**

**n = 10 \* n + integer that ch represents**

**if(!aQueue.isEmpty())**

**aQueue.dequeue(ch)**

**else**

**done = true**

**}while (!done and ch is a digit)**