Read an infix expression from an input file and convert to postfix. Instead of displaying directly on the screen, first place in a queue, and then display the contents of the queue on the screen.

Precondition:

* The expression will be read from a file (input.txt) that contains a single line. There will be no spaces between the operands and the operators.
* The following operators are allowed: ( ) + - \* /
  + The normal rules of precedence will apply.
* No error checking is necessary.
* The numbers will all be greater than 0 and less than 10 (positive, single digit numbers)

Example:

1+2

converts to

12+

Summary: Push (Empty, operator higher, open parenthesis)

Pop (operator lower or equal, close parenthesis(pop to open parenthesis (inclusive)) , nothing else to process)

Display (operands, what is popped)

Do not display parentheses

Precedence from highest to lowest

^

\*/

+-

(

=

Stacks Algorithm

* If we get an operand then write it down
* If operator
  + stack is empty, push on stack
  + stack not empty
    - if current operator is higher in precedence than what is on top of the stack then push
    - if current operator is lower or equal in precedence than what is on top of the stack then pop and display what is on the stack. Repeat process with the hot potatoe operator to resolve it.
* If open parenthesis, then push on stack
* If close parenthesis, pop and **display** everything up to the open parenthesis. Pop the open parenthesis. **Do not display** open parenthesis.

If nothing else to process, pop and display everything