

CS 315 Homework Exercise 2

Due Thursday, October 4, 2018 by class time

Please do the following **NEATLY IN PENCIL** on paper and submit them to me at the start of class.

Remember to put your name on the sheets of paper.

1. Use the algorithm done in class to evaluate the following RPN expressions. Please show the various states of the operand stack as you push and pop.

ALL operations are INTEGER operations especially / and %.

a. 10 8 6 - * 3 /

b. 5 8 - 17 5 % +

2. Use the algorithm done in class (and posted on Canvas) to convert the following infix expressions to RPN. Please show the various states of the operator stack and answer queue as you manipulate them. Once you get the RPN, use the RPN evaluation algorithm to check your result which should be equal to the result of evaluating the infix expressions.

ALL operations are INTEGER operations especially / and %.

a. (6 + 3) % 10 * 3

b. 3 / (10 - 8) * 15