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2/10/2024  
ECE 309  
Program 1 Report

	request_1.txt	request_2.txt	request_3.txt
Move-to-front	164	862	5519
Transpose	124	1095	5480

For request\_1.txt, the transpose function was far more efficient and took approximately 75% of the steps compared to the move-to-front function. This is likely because each number is called on exactly twice, so there are not certain numbers that are called on any more than any other number. The move to front function is more efficient in cases such as request\_2.txt, where there are certain numbers that are repeated multiple times in a row. The numbers being moved to the front makes it so that when the same number is called on two or more times in a row, it is found immediately within the search. The longest of the three files was request\_3.txt, in which case the move-to-front function was slightly more efficient. There is some repetition within this file, but the length of it makes it so that neither function has a huge edge in efficiency over the other.