# AERE 361: Lab 10

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# 1 Exercise 3

1.) The run time is relatively similar, but the transposition does increase it. With the transpostion, there is more being stored in the cache, thus overall perfomace decreases. This means the cache misses increase and are more likely to occur with transposition

2.) The impact of the transposition can only been seen on a small scale, since 22361 is relatively small number for computation

3.) With larger programs the run time would increase exponentially, and the cache performance would decline.

4.) I would guess without tranposition there is O(n) and with it becomes $O(2^n)$

5.) There would have to be data in the magnitudes of 7 figures for there to be a noticeable difference