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CISC 372 HW1

1. What are the pros and cons of each method of allocation?

    For the array of pointer to other pointers, it is often much simpler and flexible to implement. As a beginner it is easier to grasp and you can simply understand how the a row of pointers is nested inside another row of pointers. This is also very flexible as you can change the amount of rows and columns at your disposal based on your demand as it is not a constant set of allocated memory. As for the cons, this can be slightly more inefficient because of the double pointers and it can also be harder to maintain/managing the pointers. Since we create a row of pointers pointing to another row of pointers we increase the time it takes to access the value and also the amount of memory we need to manage throughout the program

    For the continuous block of memory, the pros and cons are reversed. Since the number of pointers decreases we increase efficiency and create easier management of the memory. However, this ends of being more complex as the value are stored in a continuous block and it can also be harder to dynamically allocate more as it is a constant allocated block of memory.

2. Can you think of a situation where one of these would be better than the other?

    For simpler programs and dynamically changing requirements I would go for the array of pointer to pointers as the implementation is much simpler and you can change the memory allocations based on your needs. If I wanted more efficient and easier management, I would go for the single block as it is more faster to access the values and all the data is stored in a continuous block of memory.