Array Memory Location Calculation Maths

a) Find the memory location of A[15][20] if loc(A[5][5])=8000+c, where c=last four digits of your student id. Assume row-wise memory is allocated in the integer array A[50][60], where each integer data is 4 bytes.

(a) Consider a memory system with row-wise memory allocation, a double array X[128][64] where double each double is 8 bit. let X[20][10] = m + 50000 where m is the last 2 digit of your student id.[Example; if student id = 0112410261 ,then m = 61] Calculate the memory address of beginning of the array and X[22][15]. [4]

(b) If the system was column-wise will there be any changes to the result. Show your reasoning. [2]

Find the memory location of A[15][45] if loc(A[5][15])=4500. Assume row-wise memory is allocated in the double type array A[60][60], where each double data is 8 bytes.