

# CS-206 - HW5

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## 1 Question 1

Consider the two implementations (naive and tiled) of matrix multiplication presented in the lecture.

Given two  $10000 \times 10000$  matrices, calculate the number of memory accesses for each implementation, assuming no caches, a block size of  $20 \times 20$  threads and enough shared memory capacity.

## 2 Question 2

Given a vector of  $V$  unsorted integers, devise an efficient kernel that finds the minimum and maximum elements in the vector.

Make sure your algorithm exploits shared memory and avoids divergent branches.

Your answer should be in pseudocode.

## 3 Submission

Deadline: 26.05.2015

Please make a PDF file of your answer and upload it in the moodle using related box. Do not forget to write your Name and Sciper number.

Please write clearly and concisely.