Quiz 4 (deadline: Tuesday 16 November 2021, 8:45 AM)

1. A GPU has larger number of cores than a CPU, is it always better to use GPU for parallel computing? Please explain.
2. Compared to the parallelization of the Jacobi method, what makes it more difficult to obtain an efficient parallel multi-grid implementation?
3. Consider a problem with a total of N grid points and using P processors, if communication cost cannot be neglected, can we achieve the same parallel efficiency for a 2-D problem and a 3-D problem? (*Hint.*: consider the data locality ratio)