

CEE 618 – Scientific Parallel Computing: Homework #12

Name: _____

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1. In the DHD dynamics example covered in class using 4 by 4 by 4 array. Do the same calculation and answer the following questions. (Directory: hasonjee)
 - (a) There are 64 particles, why does the calculation show only several different z -force values?
 - (b) What are F_x and F_y in terms of magnitudes and signs? And, How many different F_x and F_y are possible? Try to solve this problem conceptually first (without calculation) and then compare it with your simulation results.
 - (c) Do you find any specific relationship between values of F_x and F_y ? If so, what is the primary reason for it?