Problem 6.1 [Cache-oblivious Maximal Points in 3D].

Describe a cache-oblivious algorithm which takes \( N \) distinct points in 3D space and returns a list of all maximal points. A point \((x, y, z)\) is maximal if there is no other point \((x', y', z')\) such that \(x' \geq x, y' \geq y,\) and \(z' \geq z;\) in other words, \((x, y, z)\) is not dominated by any other point. Your algorithm should run in \(O(\text{sort}(N, M, B)) = O\left(\frac{N}{B} \log_{M/B} \frac{N}{M}\right)\) memory transfers.