Work Sheet 3

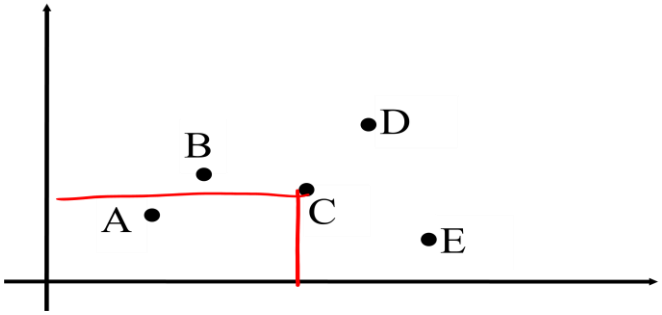
Divide and Conquer

1. Implement Large integer multiplication and extend to find the multiplication for two binary

2. Implement maximum sub array problem (Refer CLRS pg No. 68 to 75)

3. Let A = (a1,a2), B = (b1,b2). A dominates B iff a1> b1 and a2 > b2 Given a set S of n points, the rank of a point x is the number of points dominated by x. Compute the rank of each point using divide and conquer strategy.

Example:



Let A (2,3) B(3,4) C(5,2) D(6,5) E(7,1)

rank(A)= 0 rank(B) = 1 rank(C) = 1

rank(D) = 4 rank(E) = 0 Find the rank .

4. Implement closest pair algorithm