1. Show that it is not always possible to combine two gene clusters that share at least one gene and appear within two windows of size $l$ into a single gene cluster that is within a window of size $l$.

2. Show that it is always possible to combine two gene teams that share at least one gene with the distance between adjacent genes in each gene team being at most $d$ into a single gene team with the same distance constraint.

3. Derive lower and upper bounds for rearrangement distance on unsigned permutations when any number of reversals and at most one transposition are allowed.