**Square-Root Decomposition (MO’s Technique & Heavy Light Tricks):**

**MO’s Technique Online Resource**: <https://blog.anudeep2011.com/mos-algorithm/>

**Problems:**

<http://www.spoj.com/problems/DQUERY/>

<http://codeforces.com/problemset/problem/617/E>

<http://codeforces.com/problemset/problem/220/B>

<http://codeforces.com/problemset/problem/375/D>

<http://codeforces.com/contest/348/problem/C>

**Heavy Light Decomposition:**

**Online Resource:** <https://blog.anudeep2011.com/heavy-light-decomposition/>

**Problems:**

<http://www.spoj.com/problems/QTREE2/>

<http://codeforces.com/problemset/problem/165/D>

<http://codeforces.com/problemset/problem/696/E>

<https://www.codechef.com/SNCKEL16/problems/ALLIANCE>

**Centroid Decomposition:**

**Online Resource:** <https://threads-iiith.quora.com/Centroid-Decomposition-of-a-Tree>

**Problems:**

<http://codeforces.com/problemset/problem/321/C>

<http://codeforces.com/problemset/problem/342/E>

<http://acm.timus.ru/problem.aspx?space=1&num=2085>

ICPC Preli - 2017: H - Maximum Subpath

**Persistency in Data Structure:**

**Online Resource:** <https://blog.anudeep2011.com/persistent-segment-trees-explained-with-spoj-problems/>

**Problems:**

<http://www.spoj.com/problems/MKTHNUM/>

<http://www.spoj.com/problems/COT/>

<https://www.codechef.com/problems/XRQRS>

<https://uva.onlinejudge.org/external/125/12538.pdf>

**Dominator Tree:**

**Online Resource:** <https://tanujkhattar.wordpress.com/2016/01/11/dominator-tree-of-a-directed-graph/>

**Problems:**

<http://lightoj.com/volume_showproblem.php?problem=1359>

<https://docs.google.com/document/d/16D4nYfKP81AF7pLKRhlKfP-uW9CYX2A5lqDKJzL8Ci4/edit?usp=sharing>

**Union-Find Trick:**

**Problems:**

<http://codeforces.com/problemset/problem/461/C>

<http://codeforces.com/contest/687/problem/D>