Convex Hull

Graham Scan: Algorithm

- Preprocessing

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θ1-G-θ1

❖ **Simple data structures:**
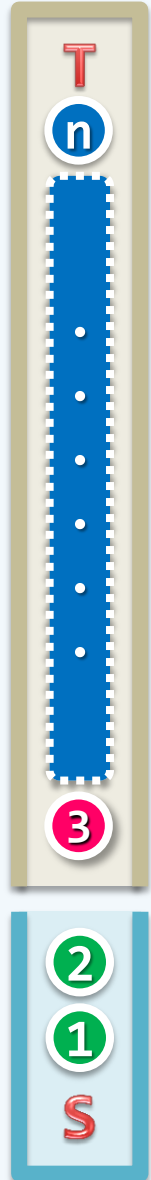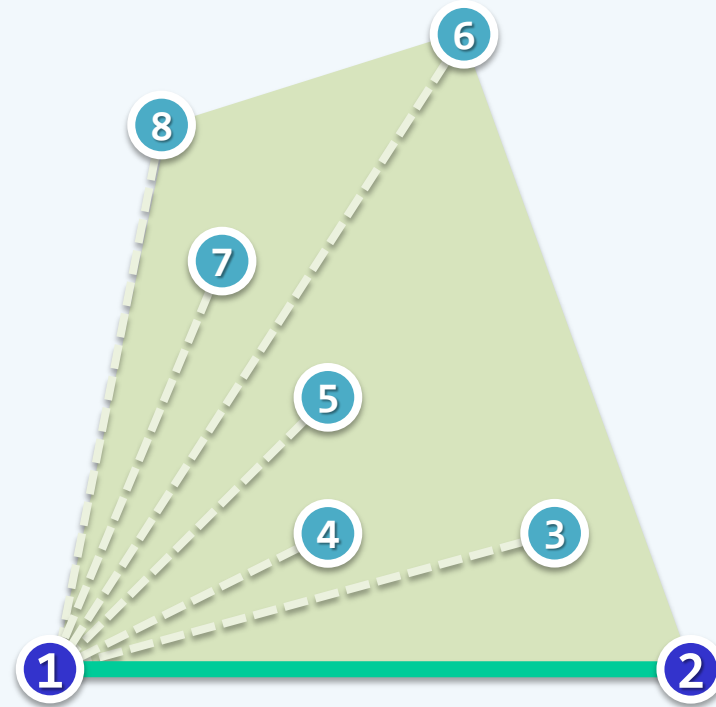
    - stack   x 2

    - pointer x 3

❖ **Find the** LTL **point** p_1

❖ **Sort and** number **all points**

      w.r.t. p_1 by polar angle

❖ **WOLG, assume that**

    - p_1p_2 is horizontal and

    - all the other points lie in the 1st and 2nd quadrants

❖ **Create two stacks**

$$T = \boxed{\ <\ p_3,\ p_4,\ \ldots,\ p_n\ ]\ }$$

$$S = \boxed{\ [\ p_1,\ p_2\ >\ }$$

❖ **Use 3 links pointing**

to the stack tops ...