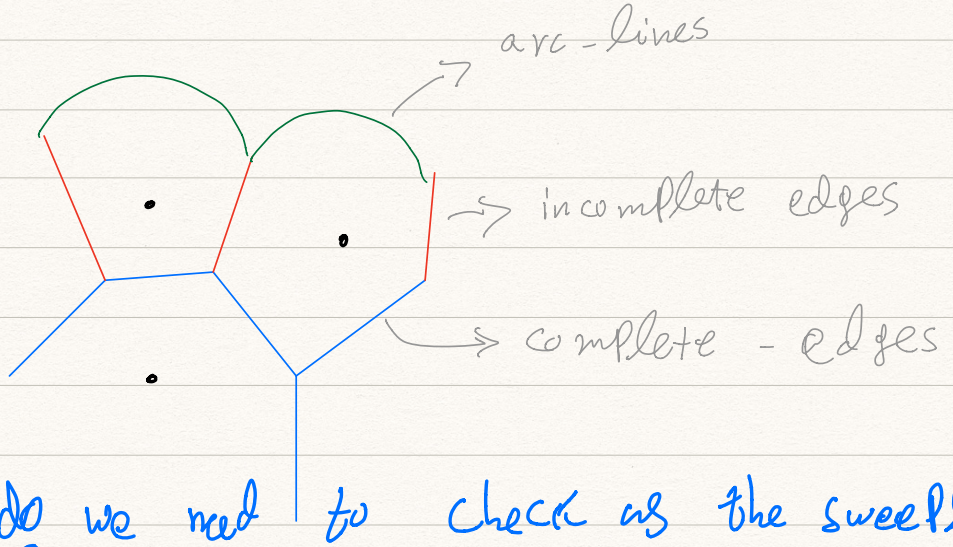
For the basic functions we adapt the Bdf file convention.

As Bertot suggested, we break edges into 3 categories



What do we need to check as the sweepline moves?

- e_i^n (edge i when the sweepline is at n)
  all
  e_i^{n+k} $\forall k \geq 0$. In the case of complete edge:
  $e_i^n = e_i^{n+k}$ $\forall k$.

- Arc-lines are tracing out a straight line.
- Their intersection are increasing (y coordinates)

Beachline: Let $B = [a_1, a_2, \ldots, a_m]$

then intersection (a_i, a_{i+1})

$<$ intersection (a_j, a_{j+1}) $\forall$ $j > i$

This criteria is necessary and sufficient,

Circle event must be preformed to respect this criterion while the sweepline moves

Site event There is only one way to a site while respecting this criterion

From a Properly constructed beachline to a correct Voronoi Diagram:

- We can assert that the cell for each arc in the beachline one subset of Voronoi and the same for incomplete edges

- The incomplete edges are extremal edges in the sense that the left and the right of an edge belongs to different cells

-- Theorem the beachline does NOT contain two consecutive arcs with the same focal point.

The end and the beginning

TBD.