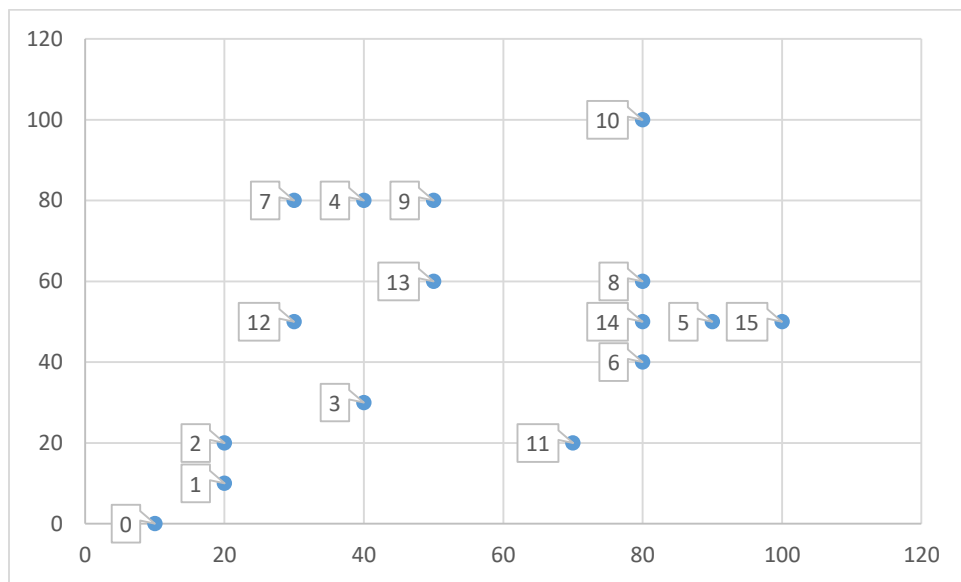


Sea Navigation

Part A

Imagine that you have a mission to visit sites located near the coast. You have a list of 16 sites on a sea map. Your objective is to reach the optimal path that connects these sites, the shortest total distance travelled. Note that your solution need to be cyclic, i.e. it starts in any site and go back to the started site.

Due to maritime currents it's not allowed to move in west direction. On figure map it means that you cannot move directly from point **5** to **14**, it is forbidden.



Part B

Now, an island has been discovered nearby some delivery points. Considering that an island is unnavigable, the route that pass through the island is forbidden. Moreover, the constraint of moving west is still in consideration.

According to the graph below, the straight route from delivery point 12 to delivery point 13 is unfeasible because it passes through at least one line that delimites the coast of the island.

Find the order of visiting delivery points that minimizes the distance travelled without disobey all restrictions.

