Visualization and Analysis of Geographic Information

Algorithms and Data Structures

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October 24, 2013

Motivation

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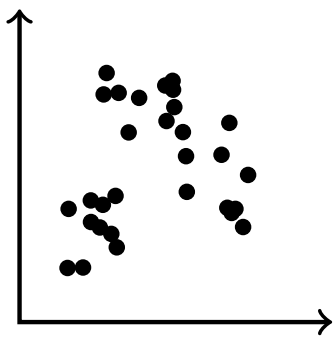

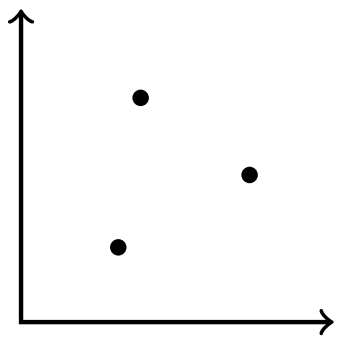

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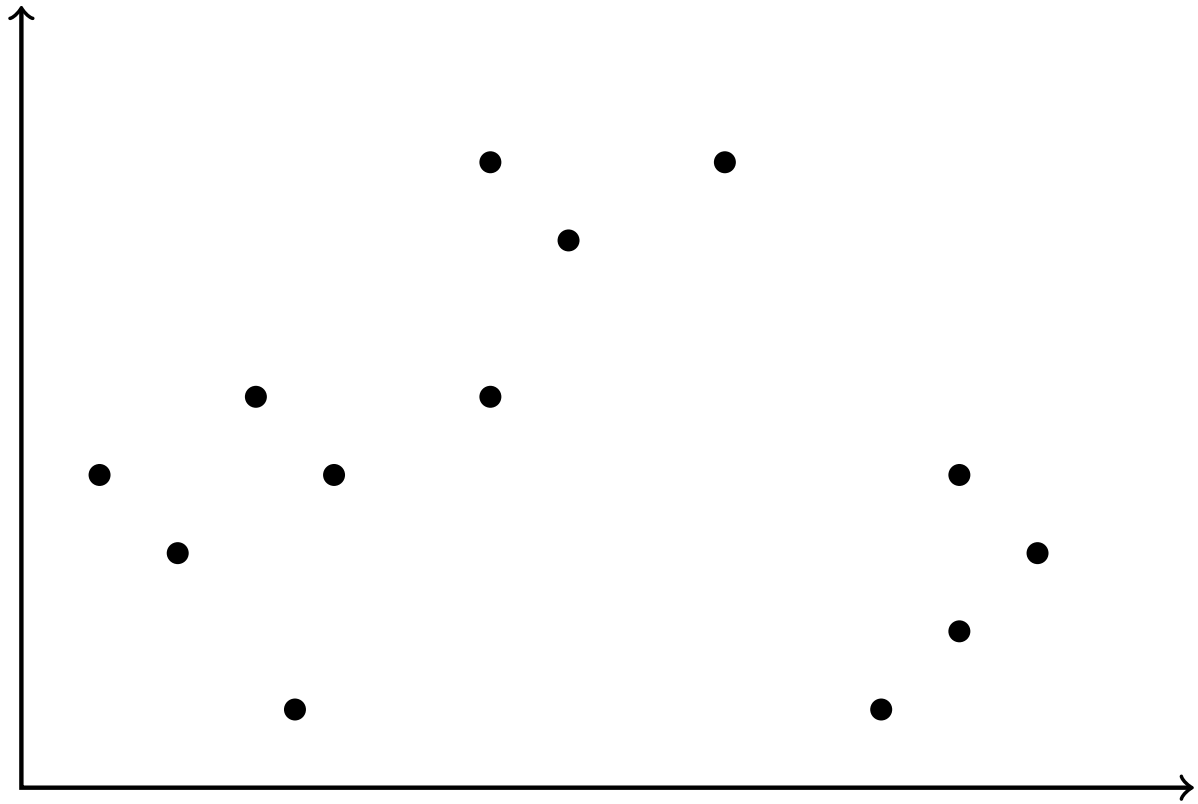

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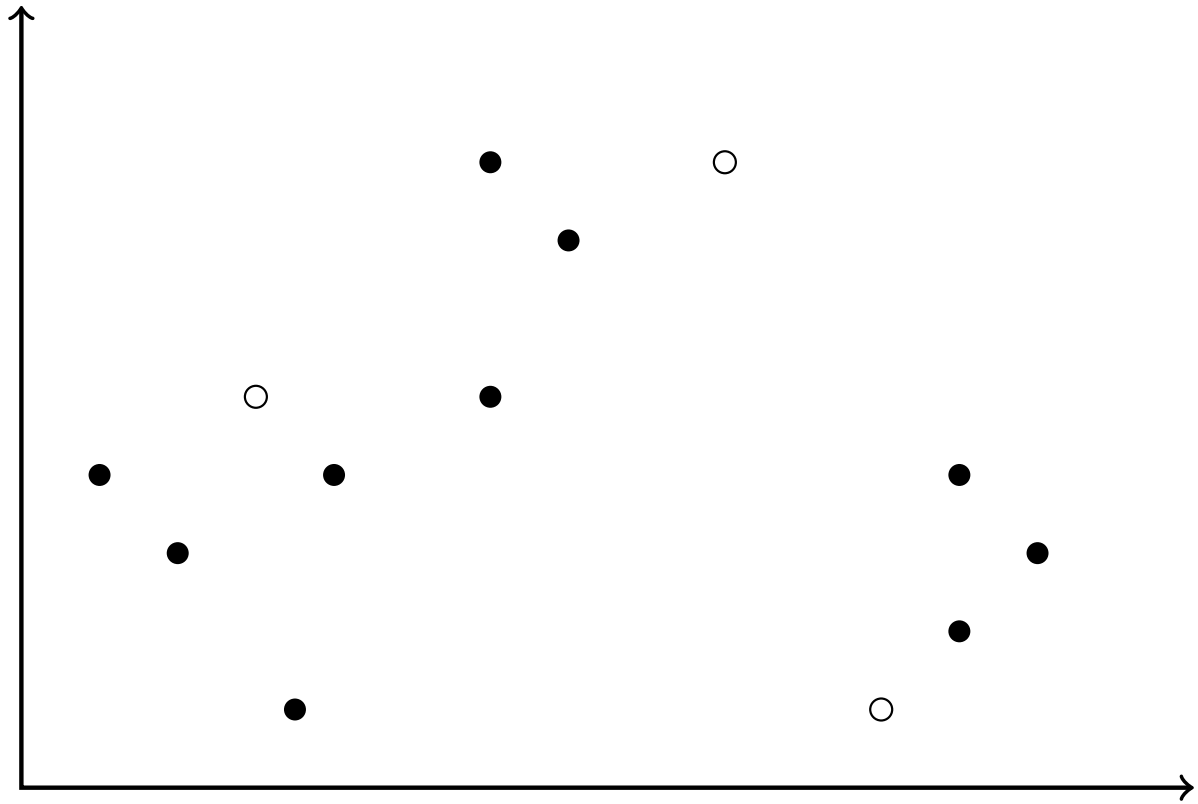

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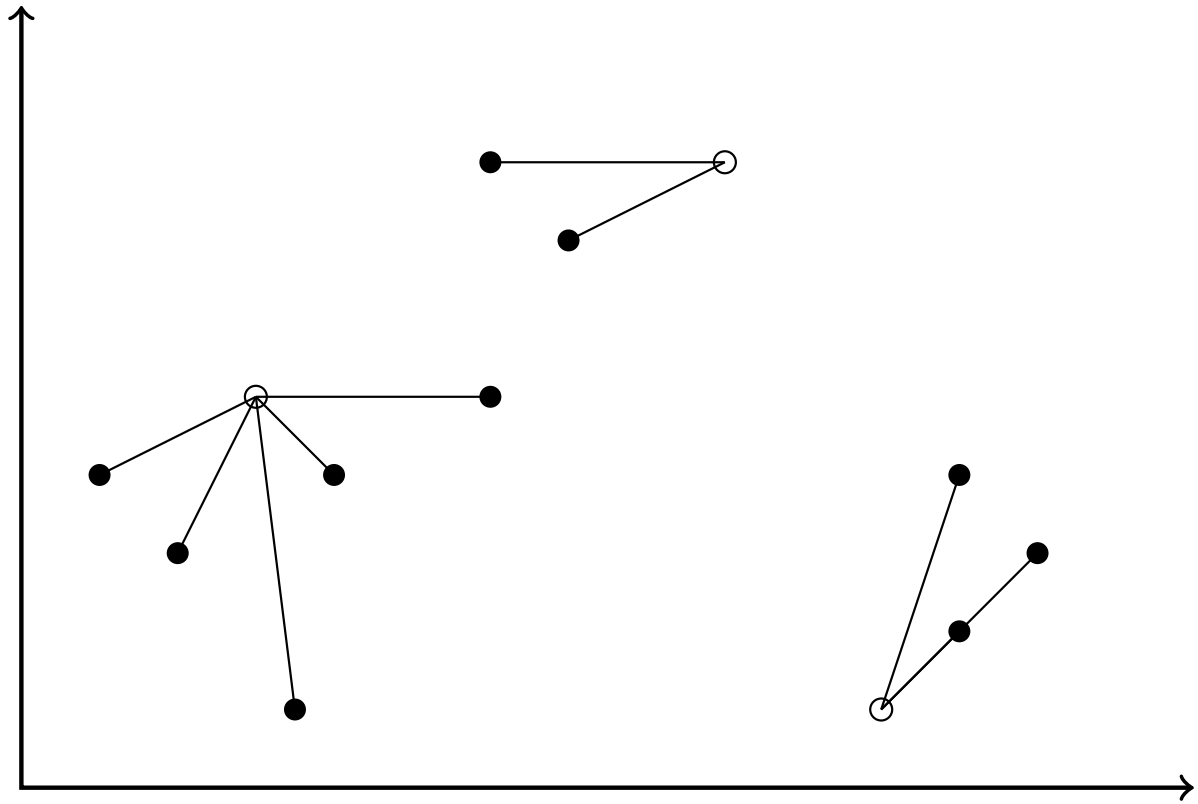

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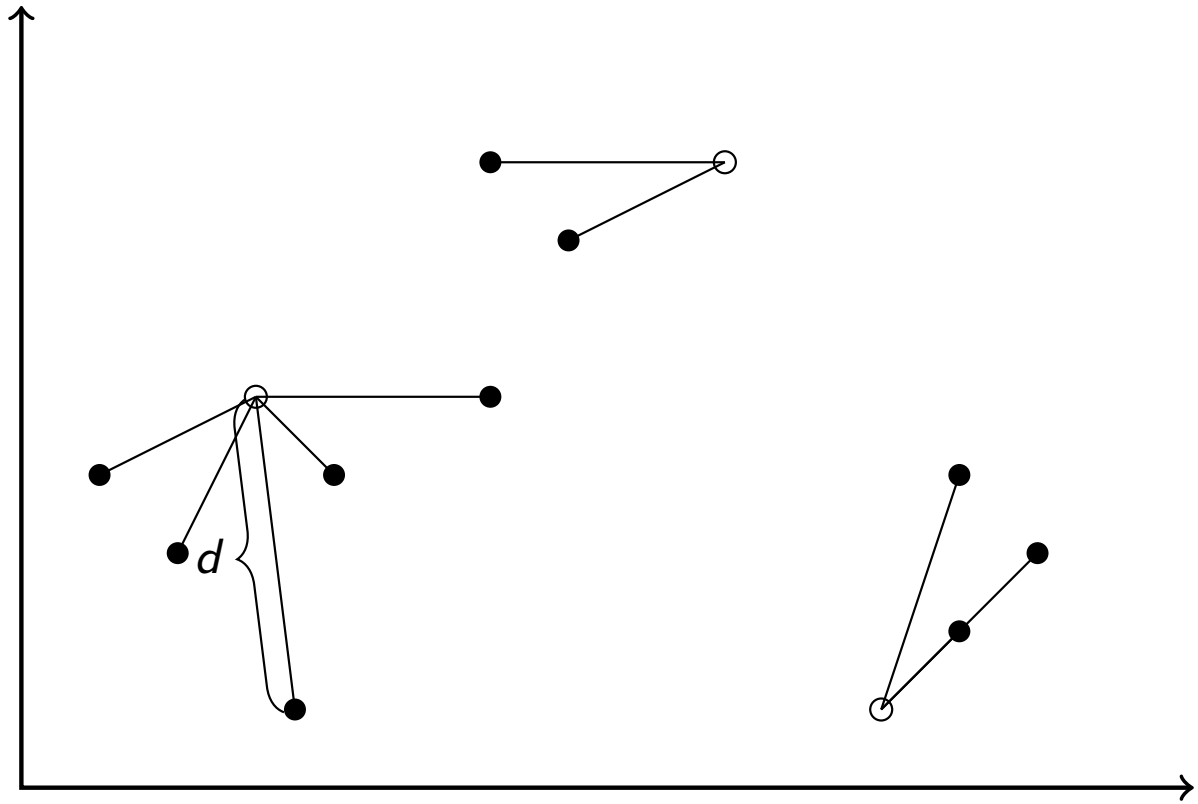

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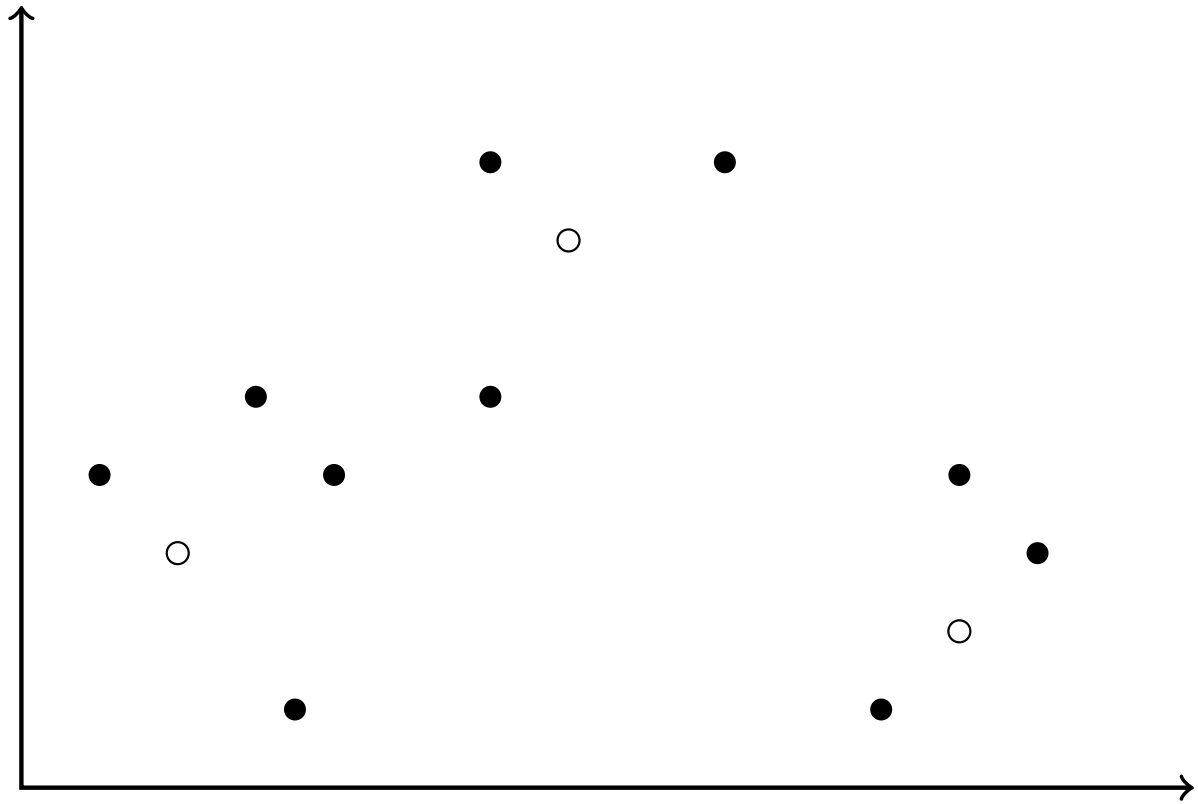

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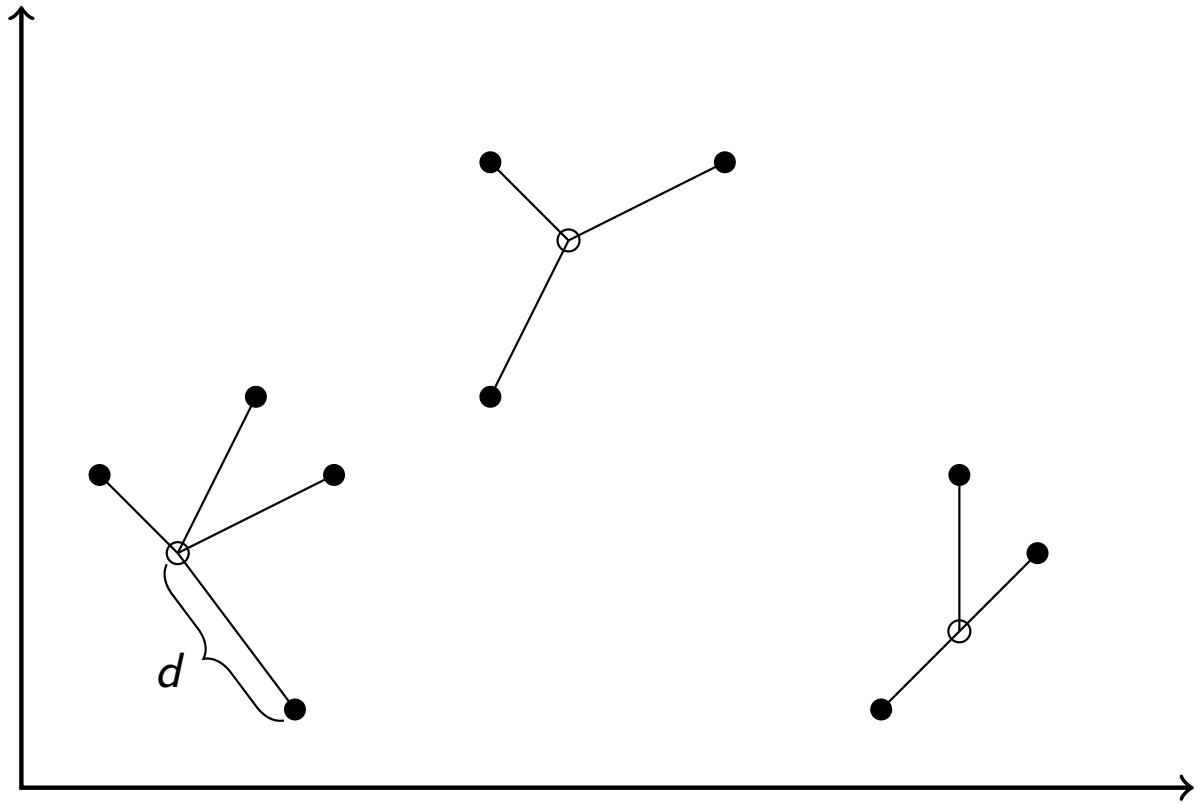

Deterministic Approach

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- Use bounds to discard branches that do not contribute to the solution.

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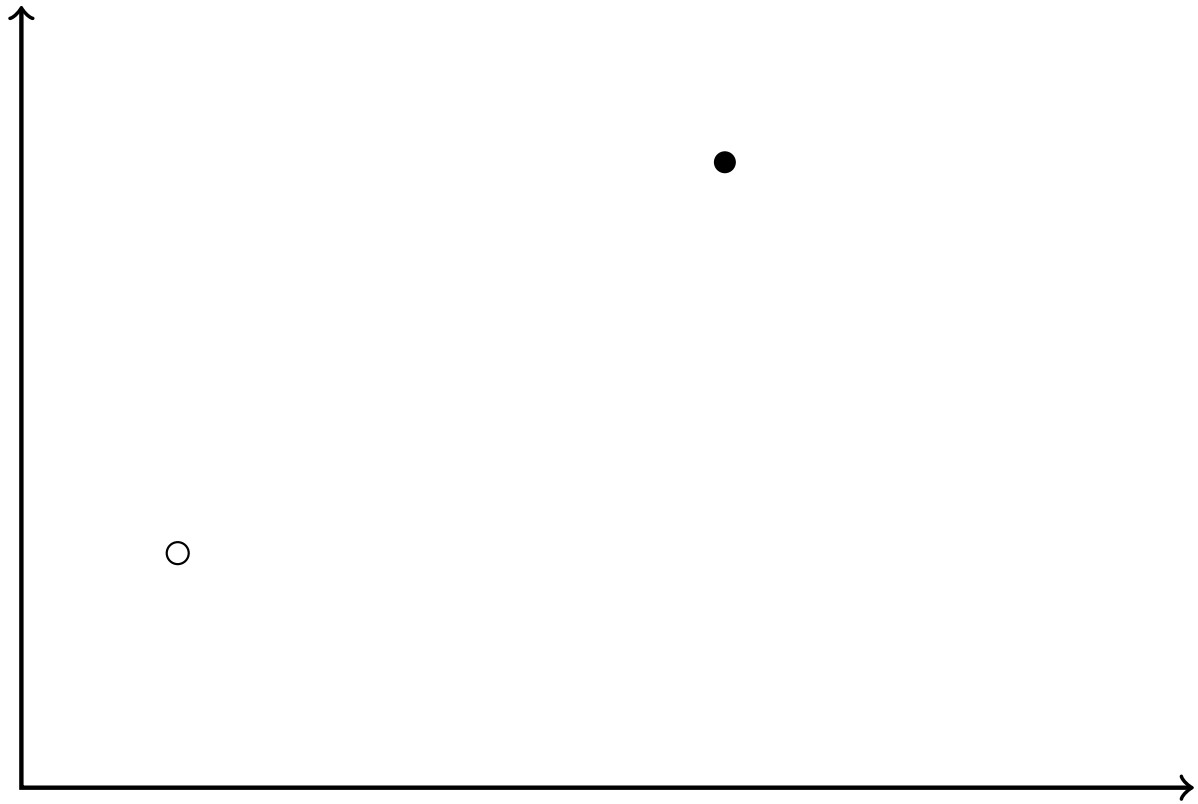

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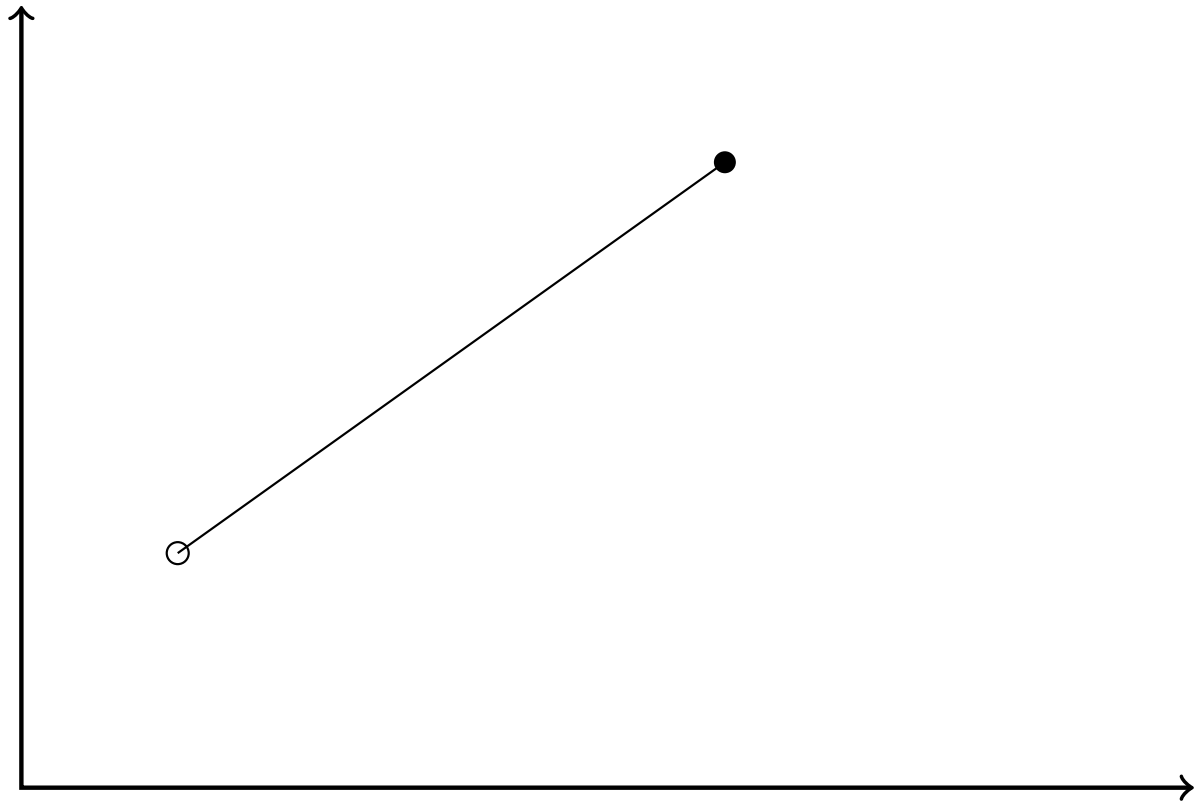

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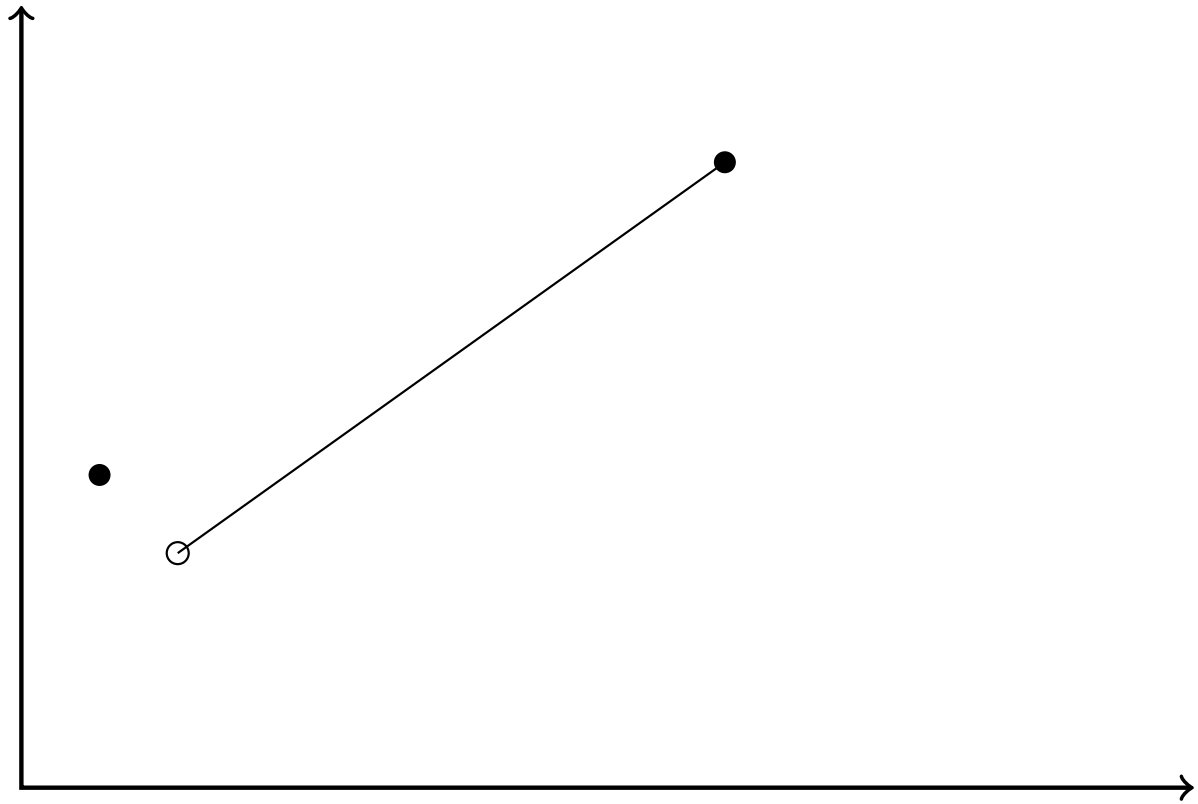

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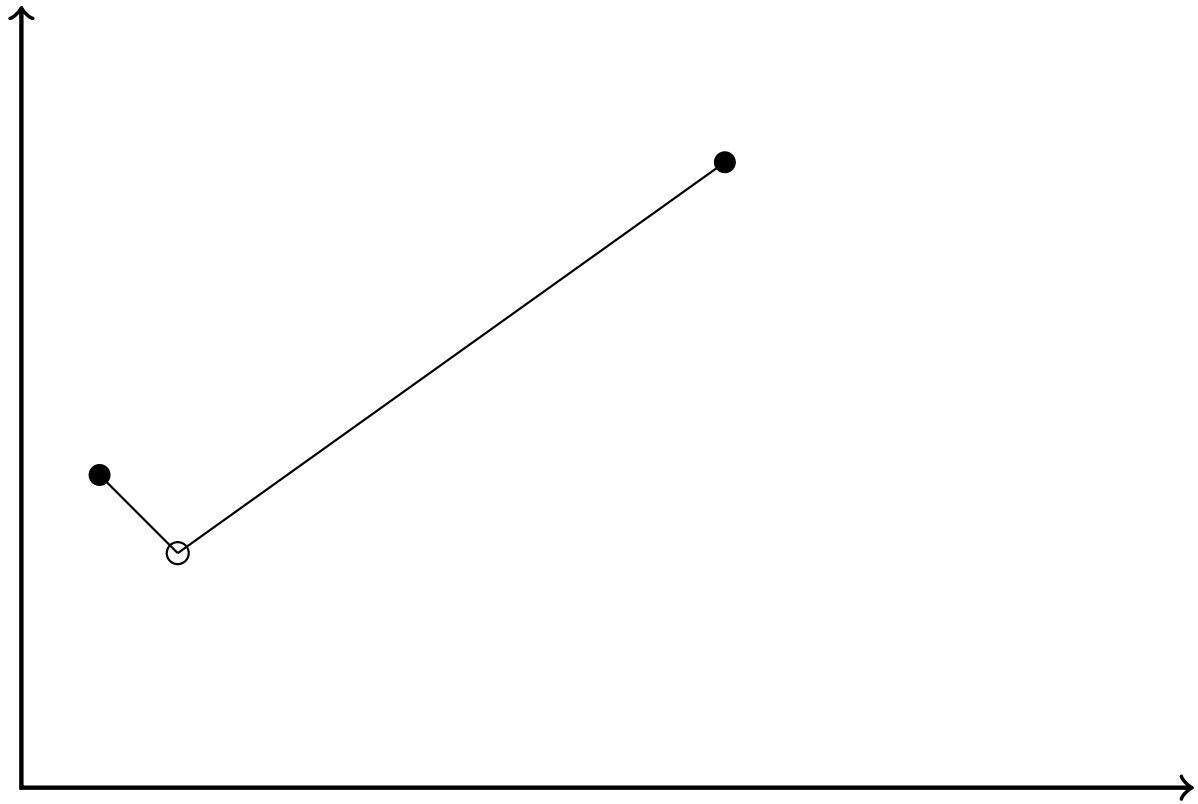

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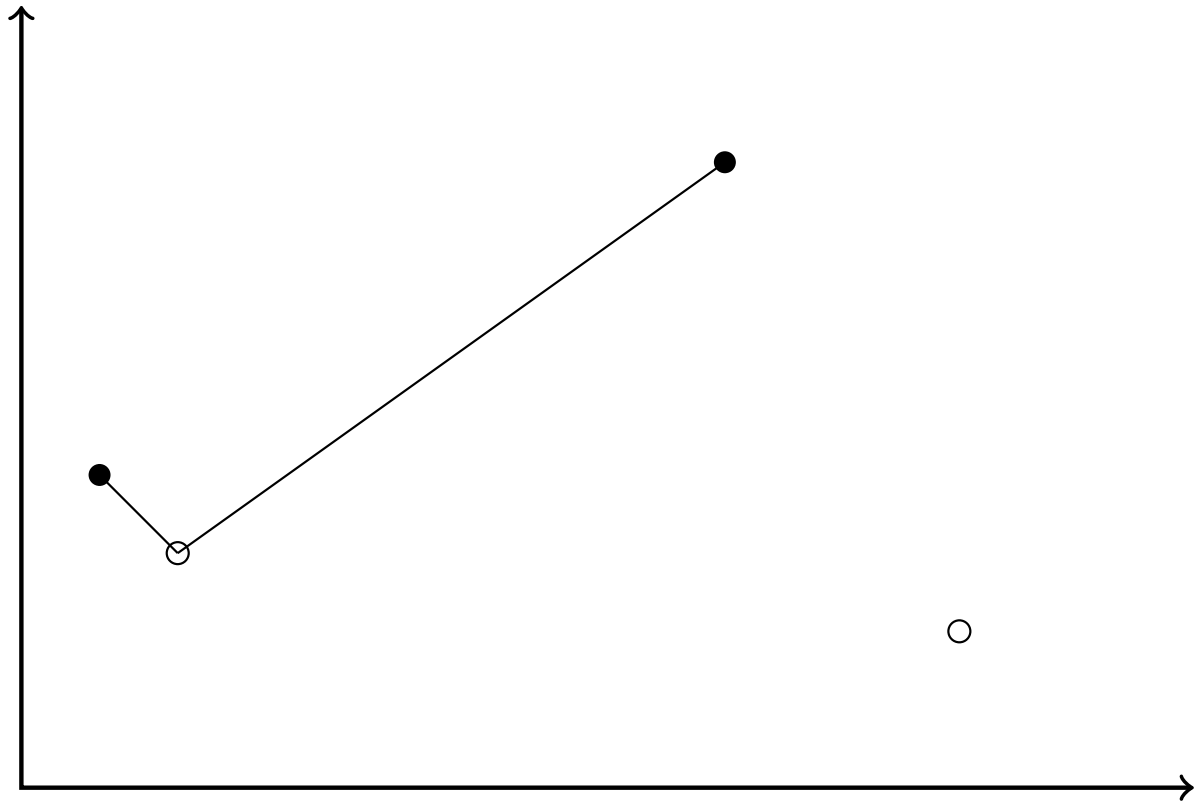

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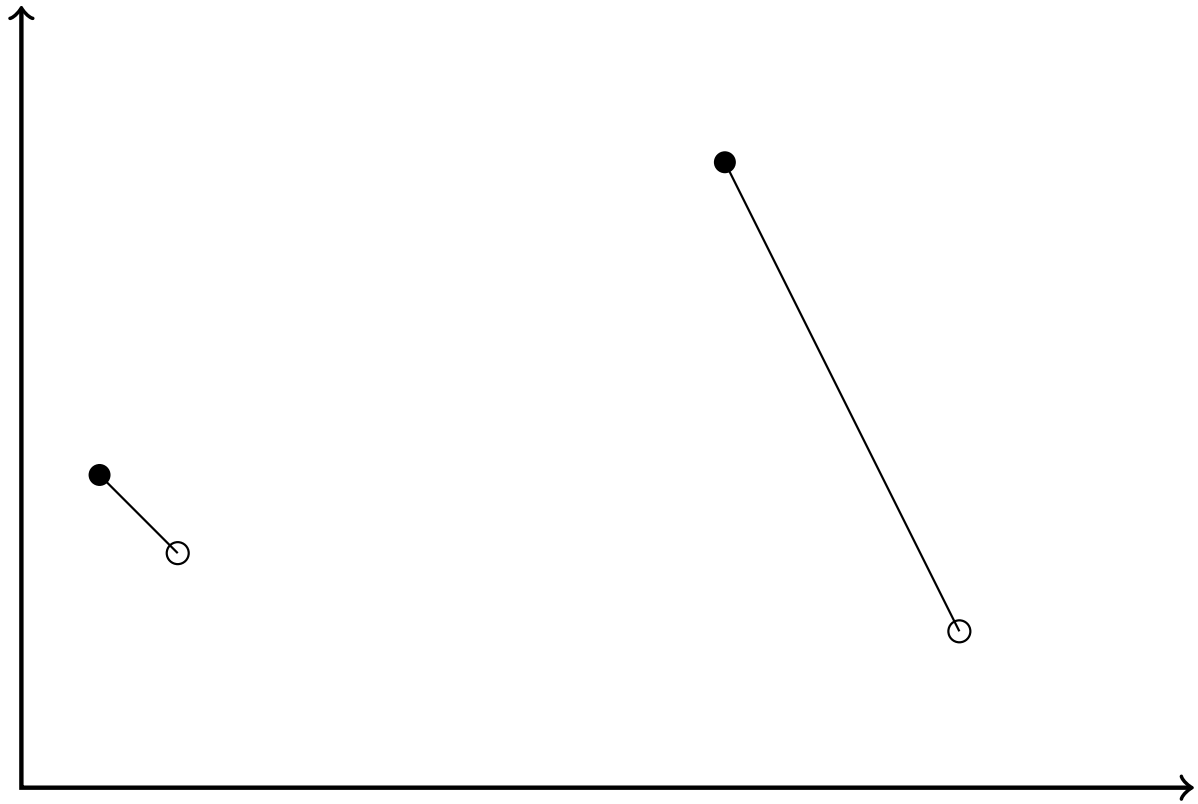

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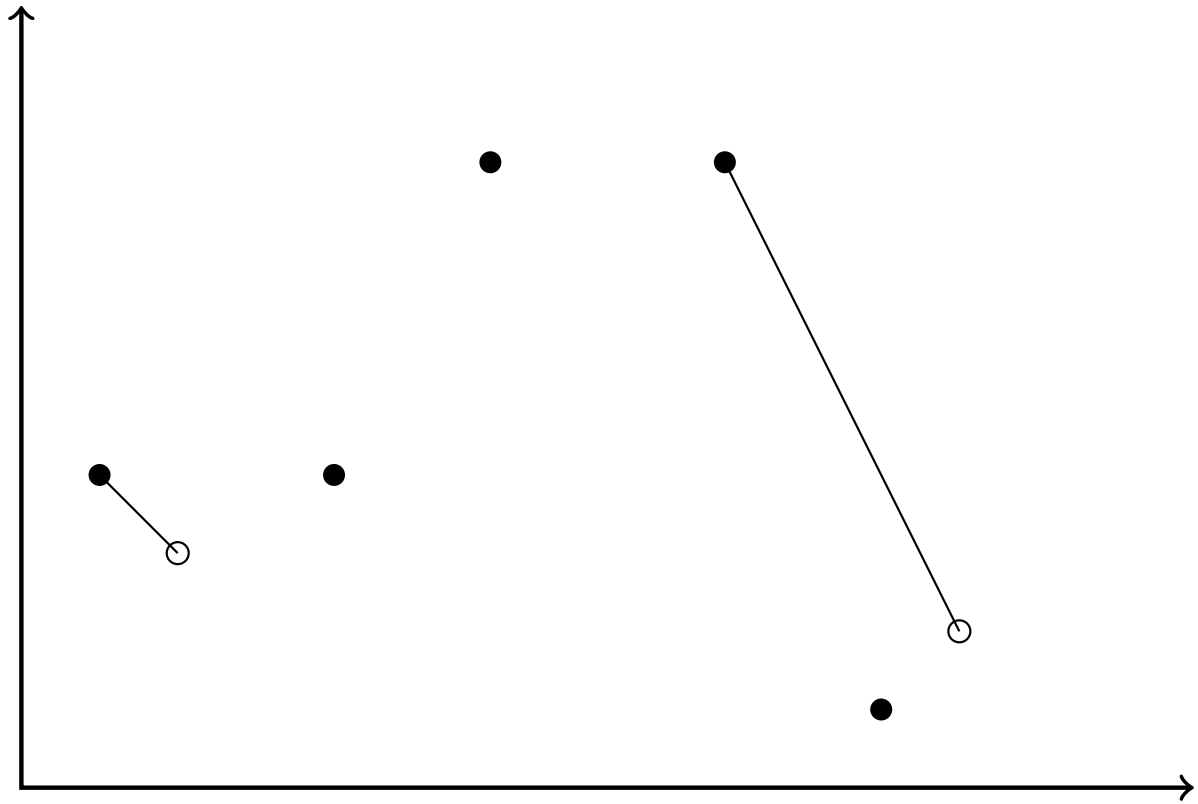

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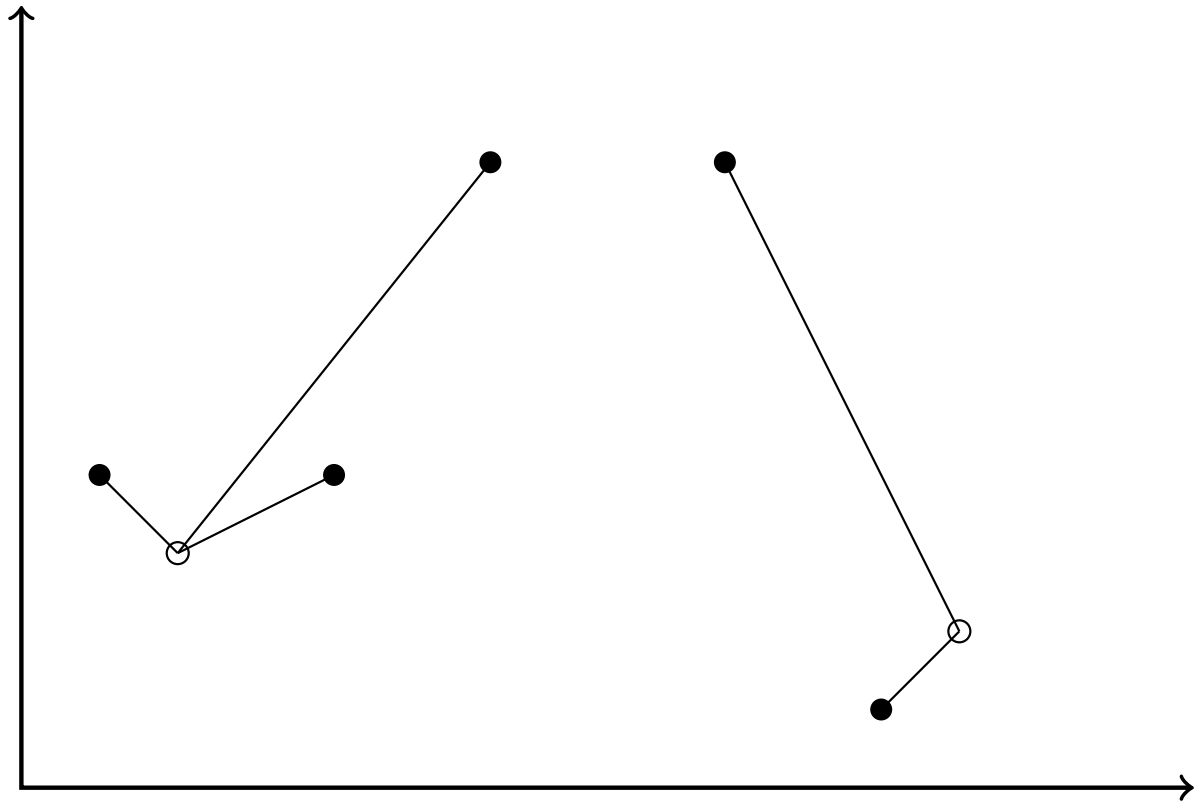

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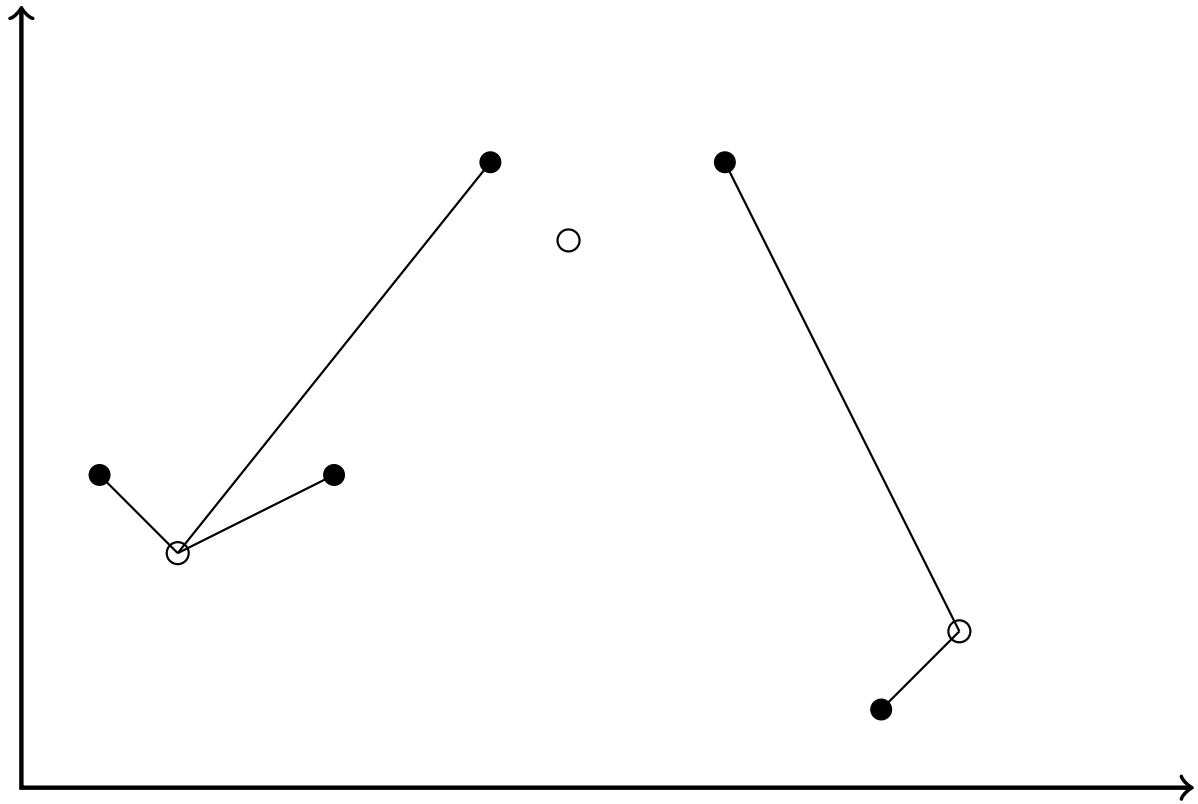

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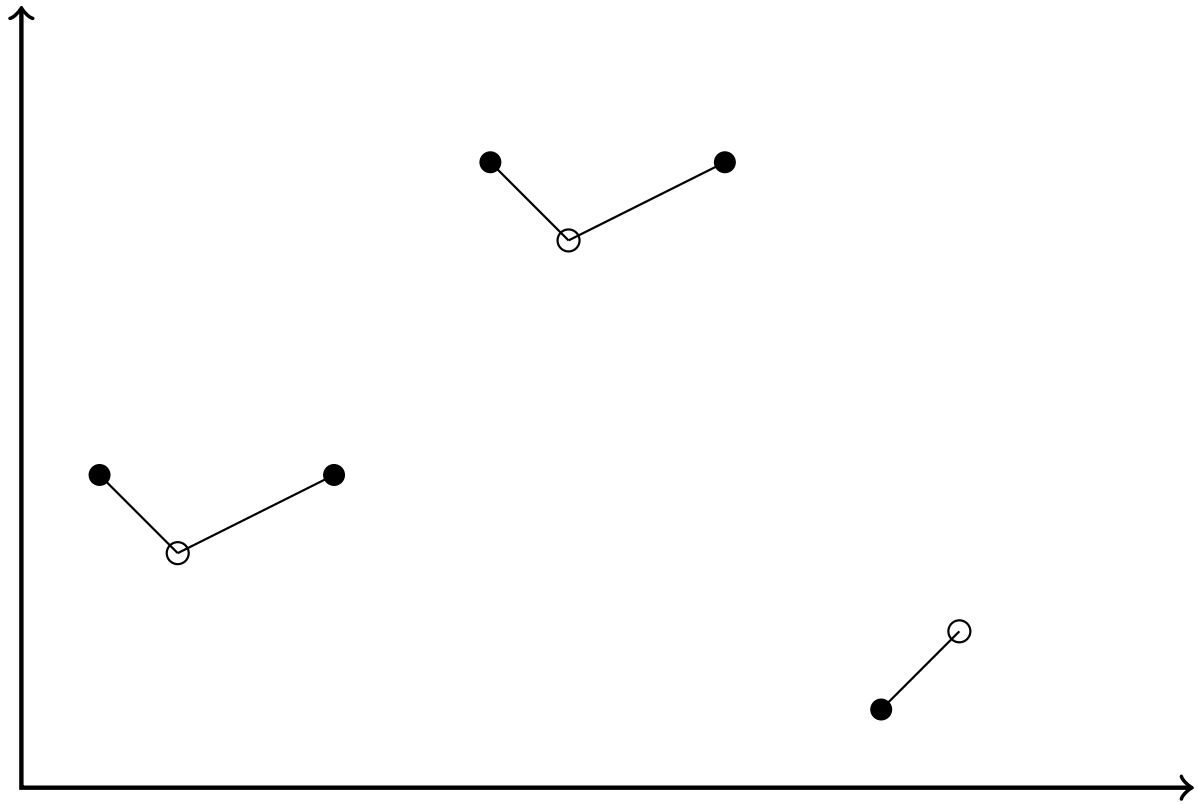

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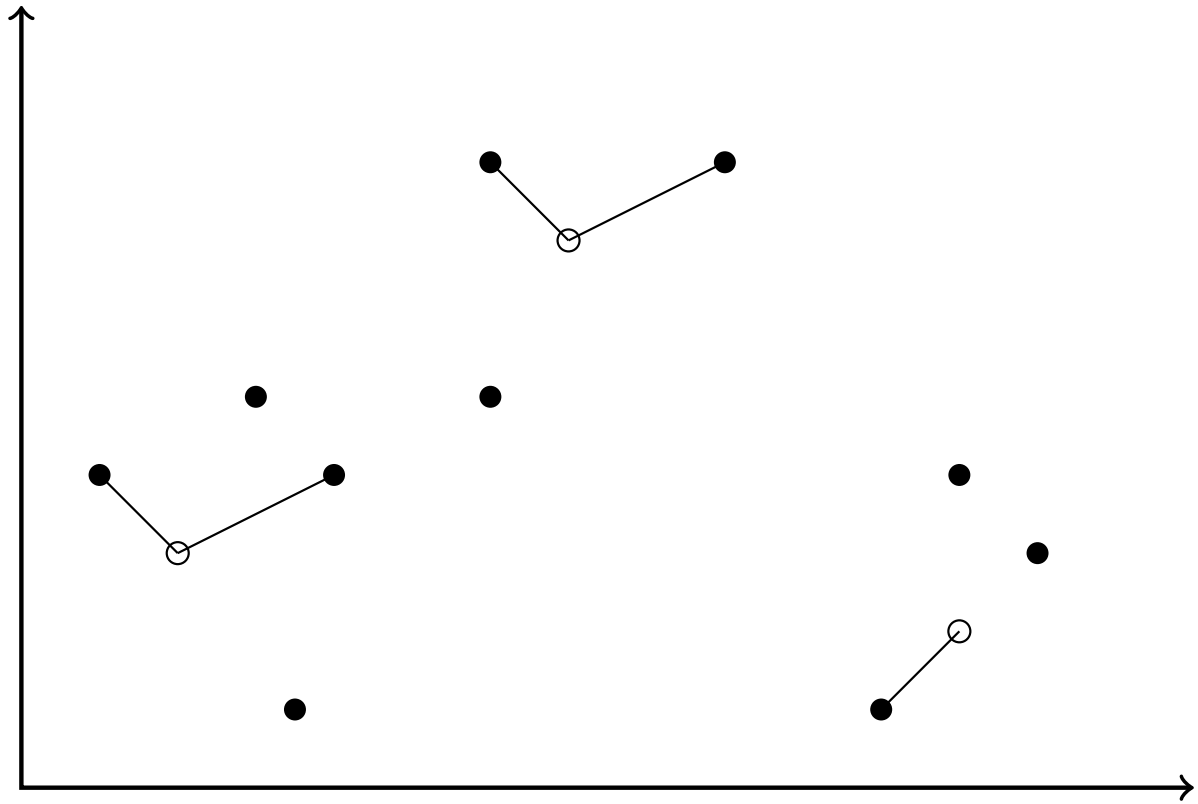

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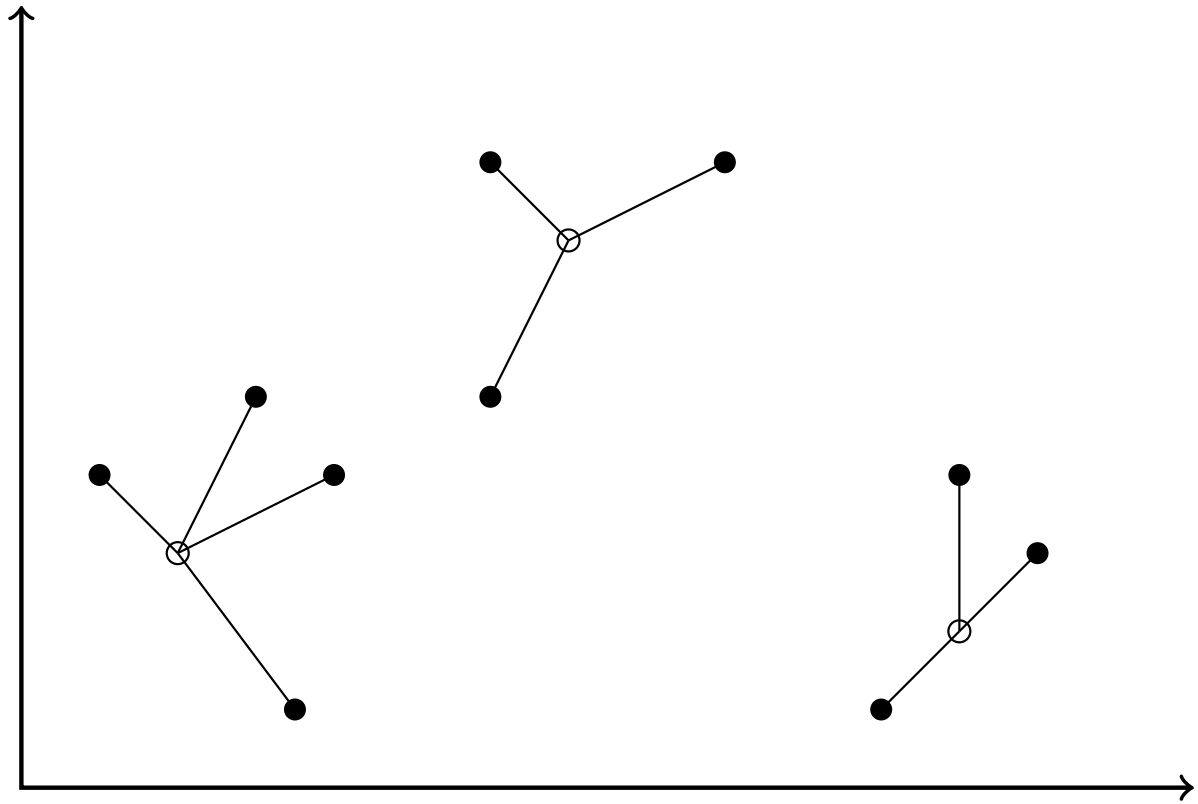

Future Work

- Implement a planar location using Voronoi diagrams to speed search up to $\mathcal{O}(\log n)$
- Explore bounds to cut the recursive tree.
- Explore heuristic approaches to generate acceptable non-optimal solutions.
- Apply and benchmark approaches with real-life data.