



4. GREEDY ALGORITHMS (PART II)

- ▶ *Prim's algorithm demo*

Lecture slides by Kevin Wayne

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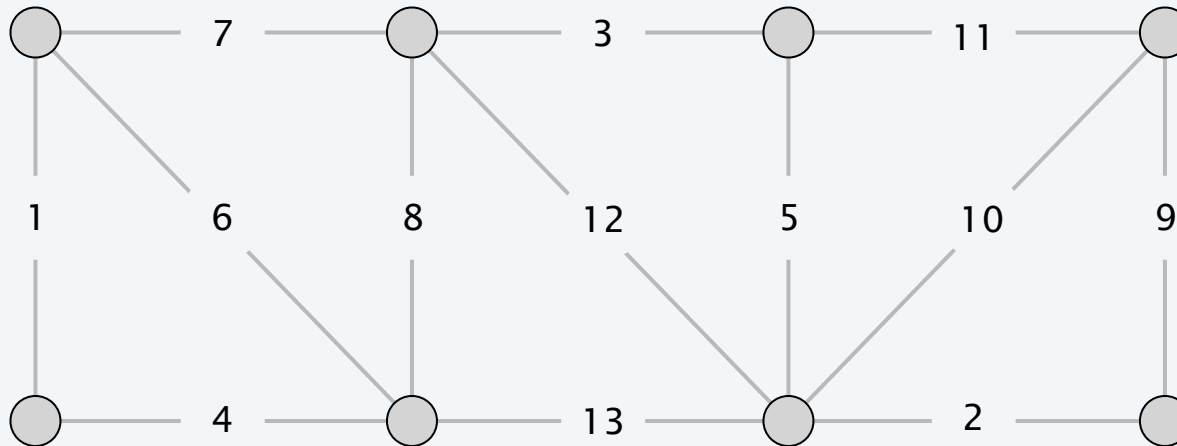
<http://www.cs.princeton.edu/~wayne/kleinberg-tardos>

Prim's algorithm demo

Initialize $S =$ any node.

Repeat $n - 1$ times:

- Add to tree the min weight edge with one endpoint in S .
- Add new node to S .

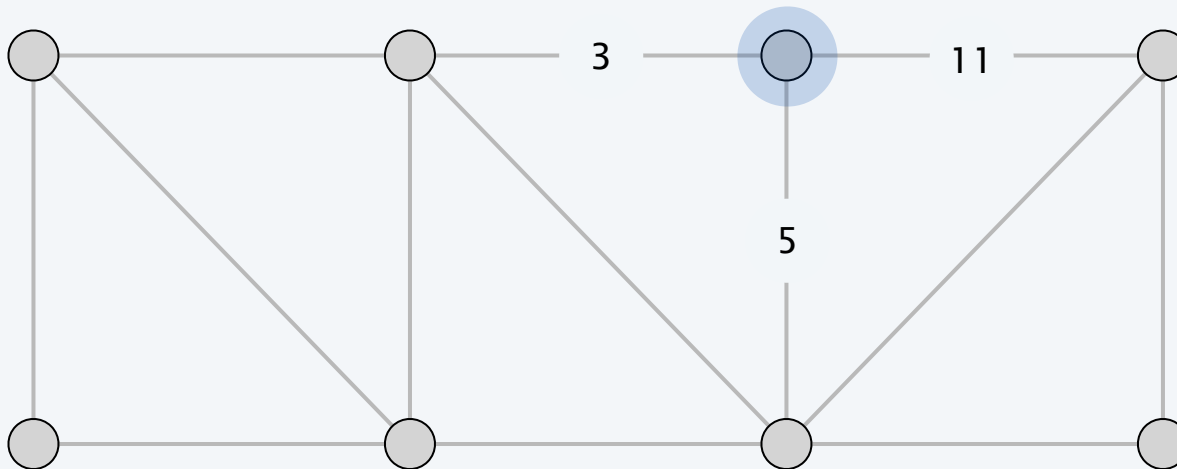


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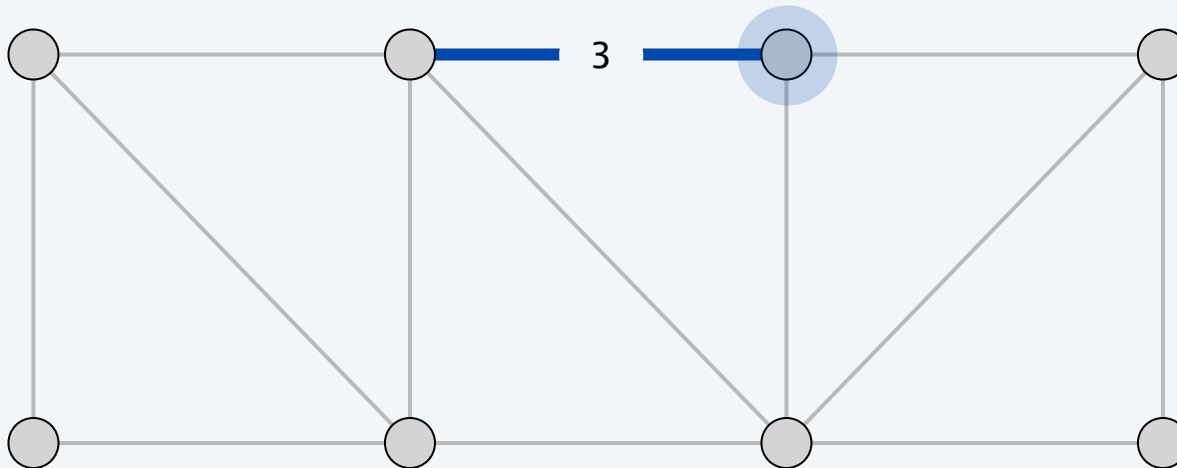


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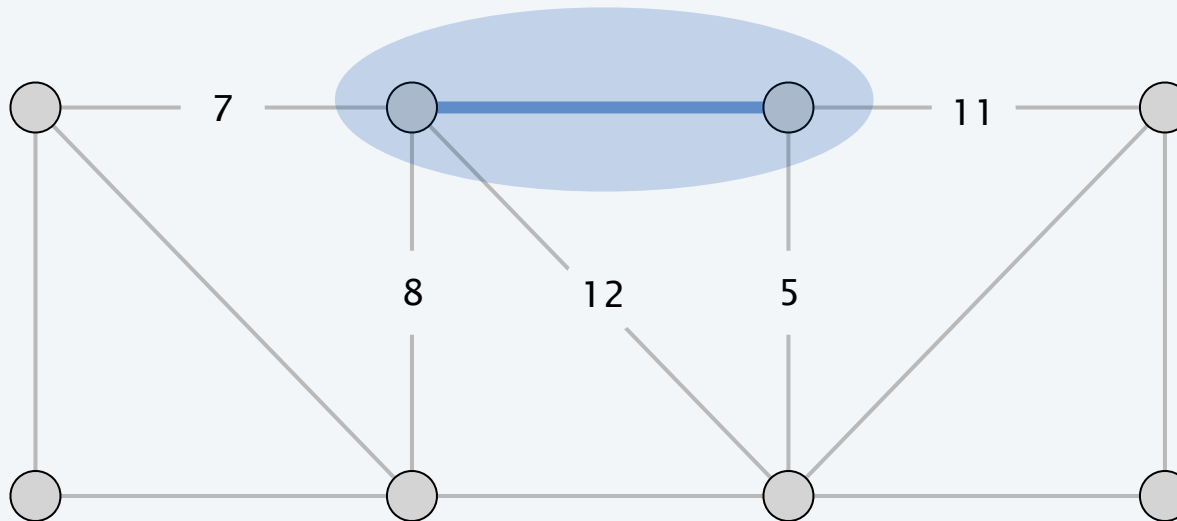


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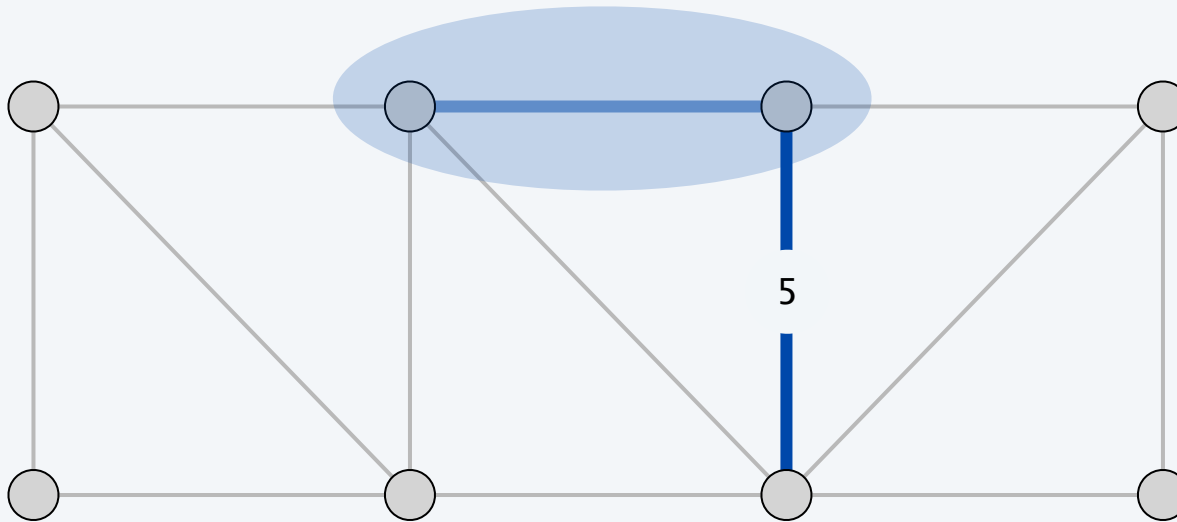


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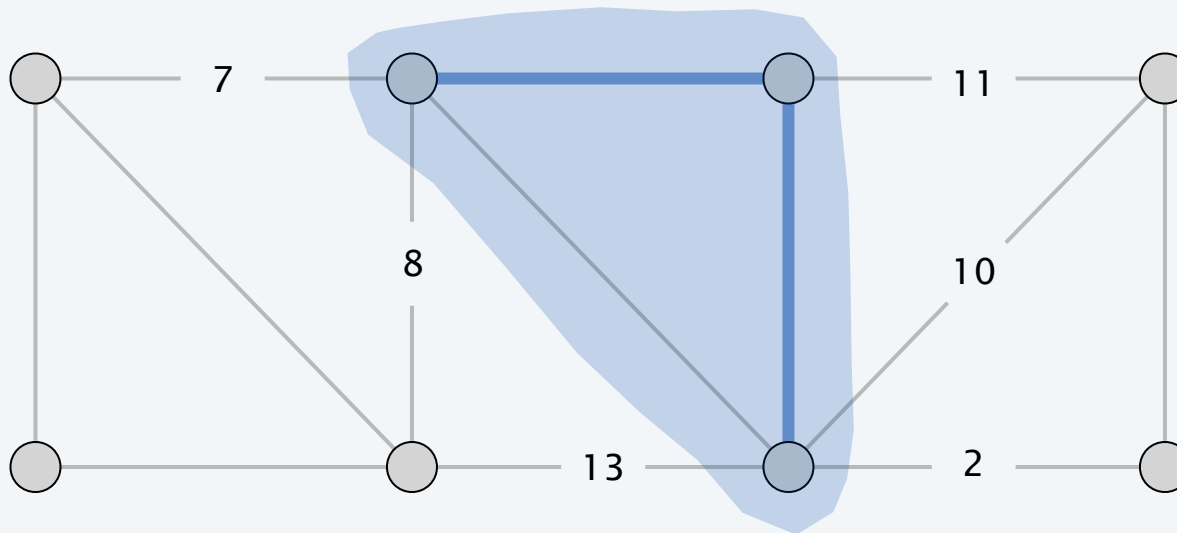


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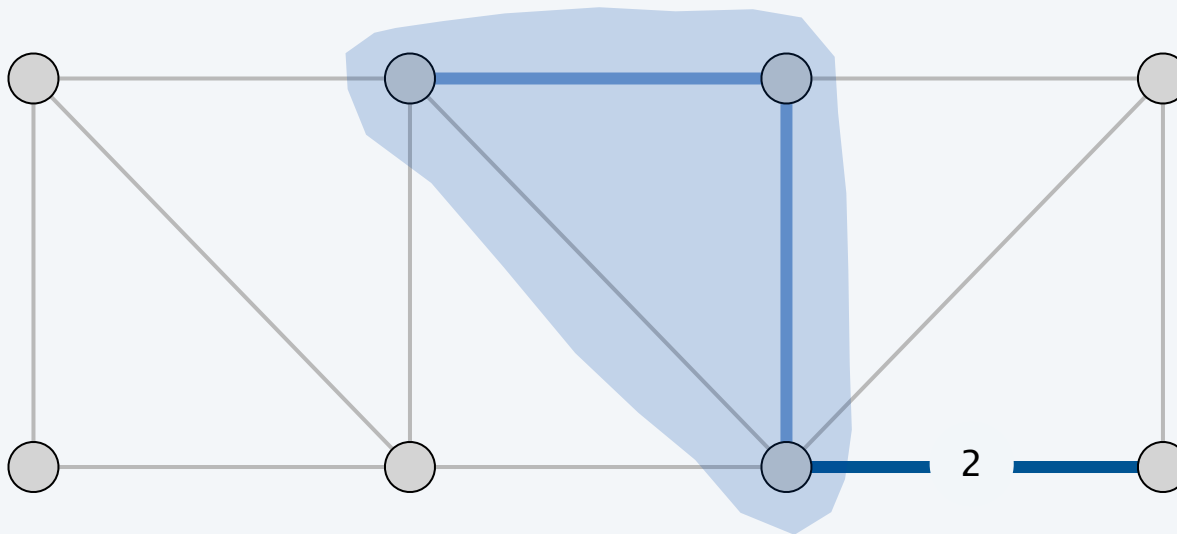


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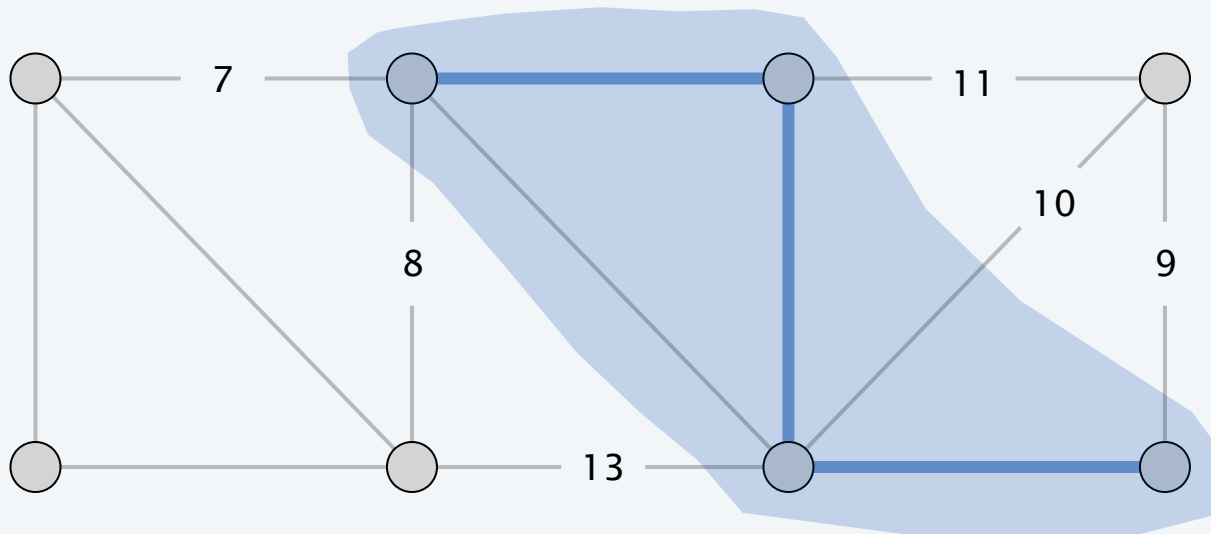


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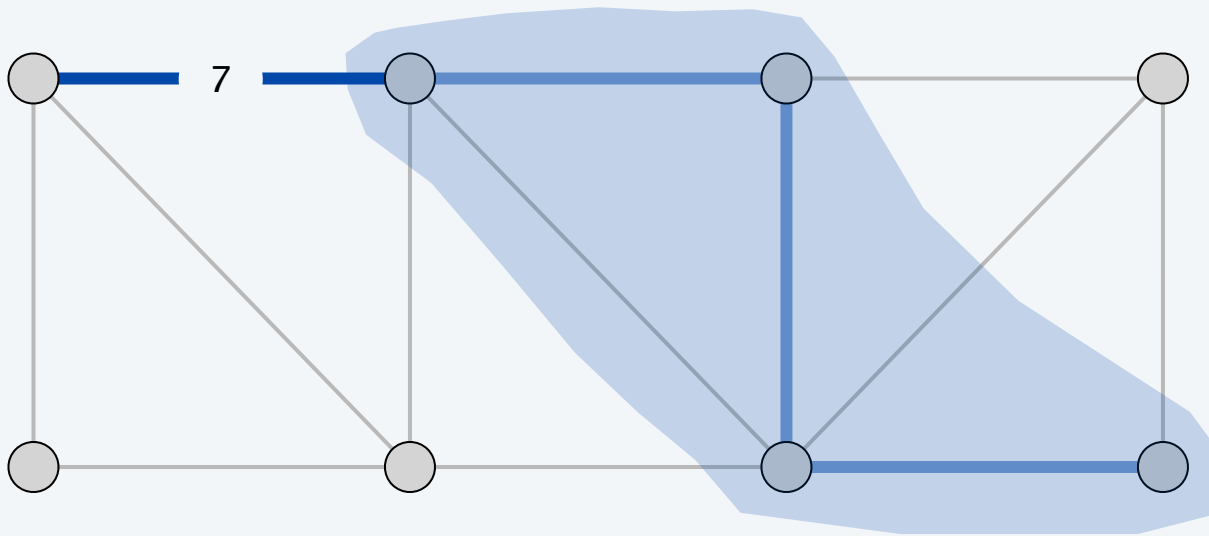


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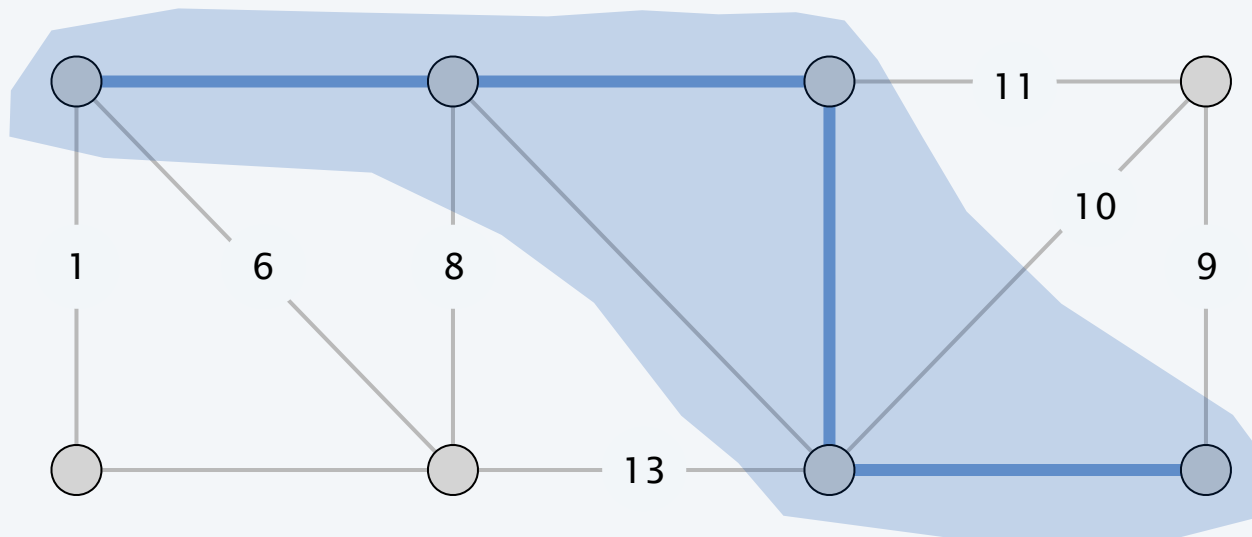


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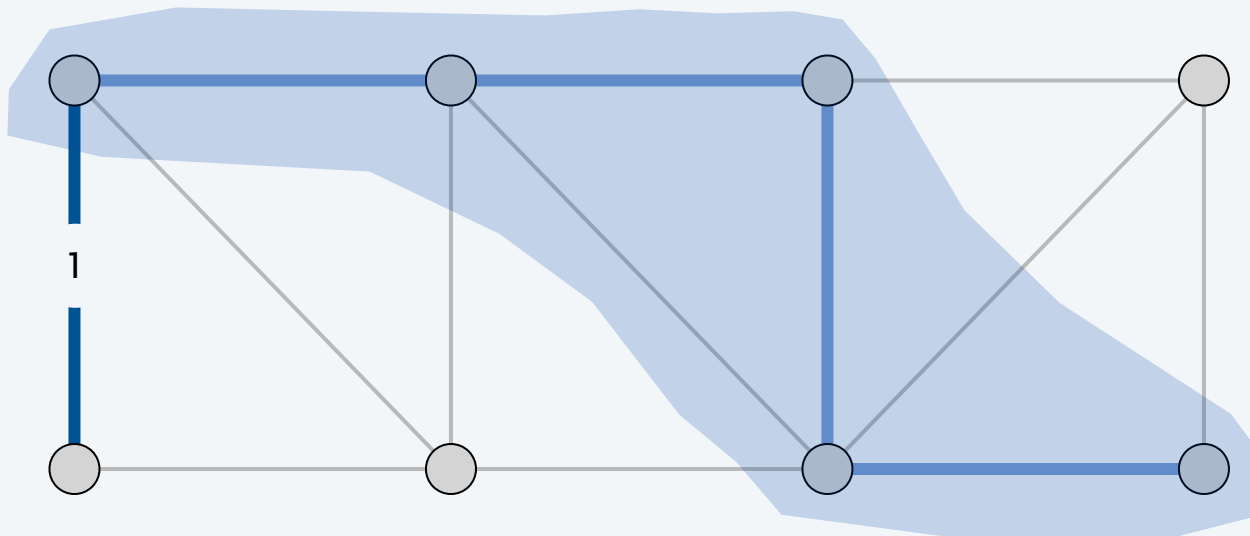


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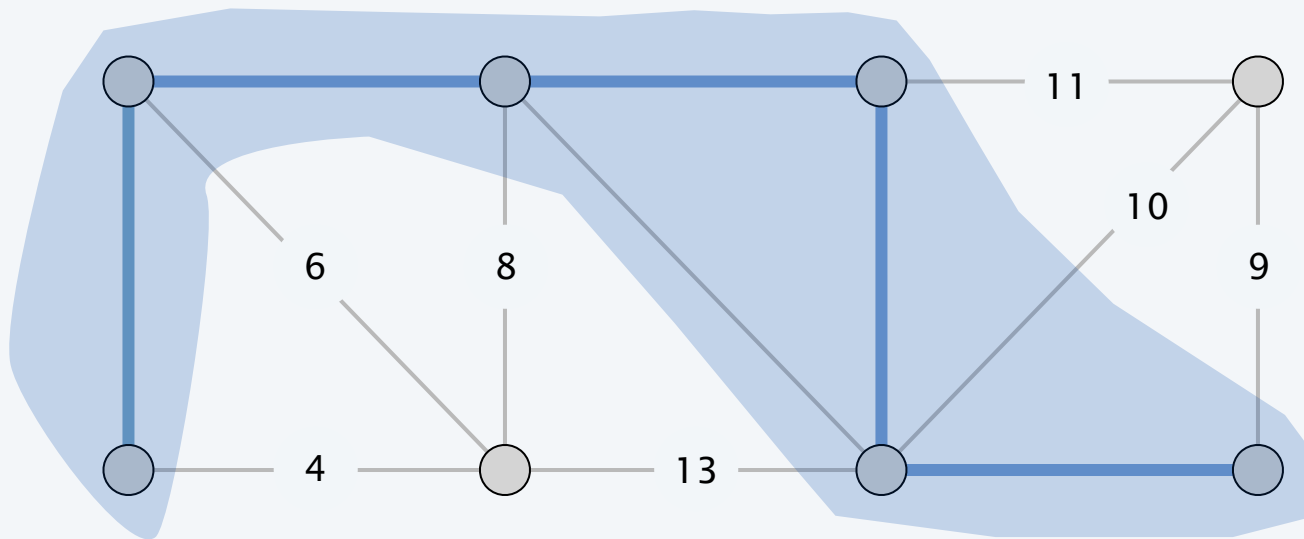


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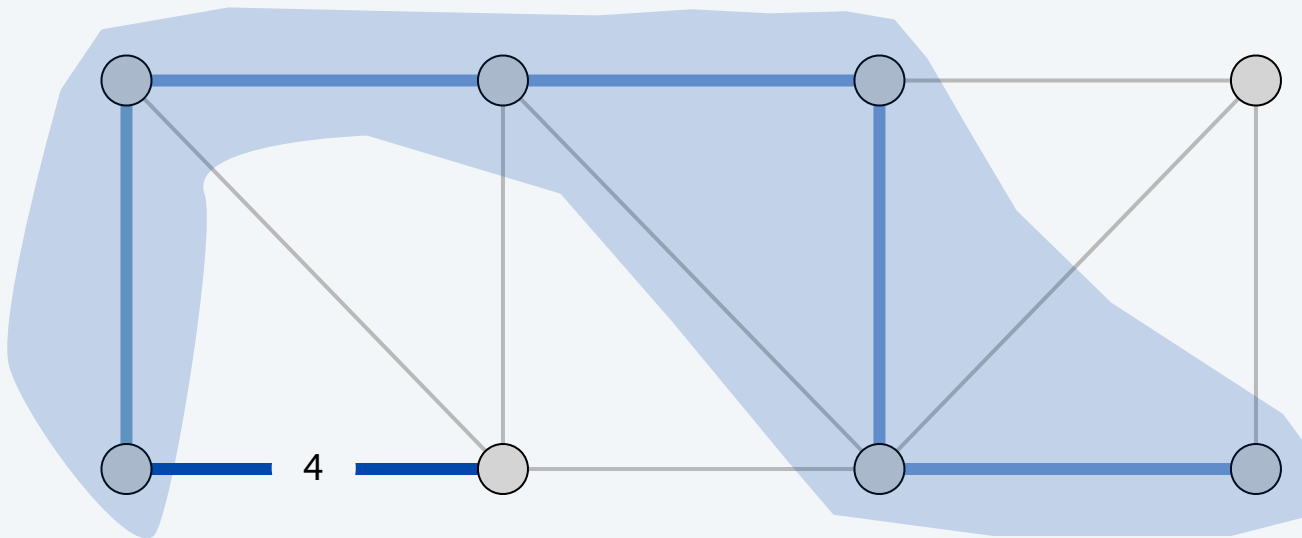


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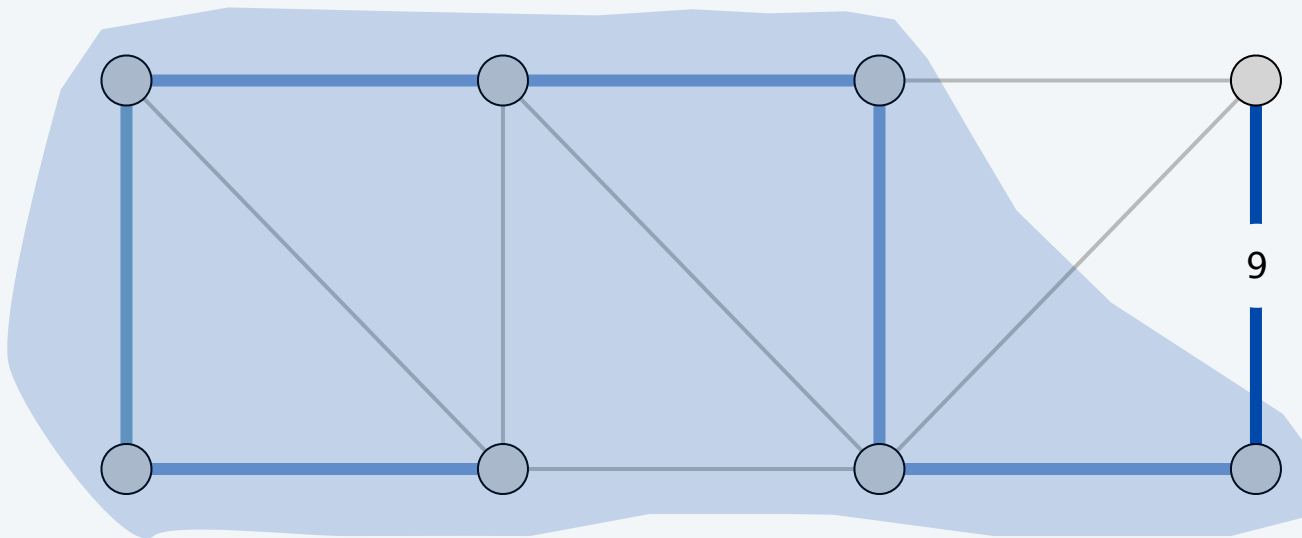


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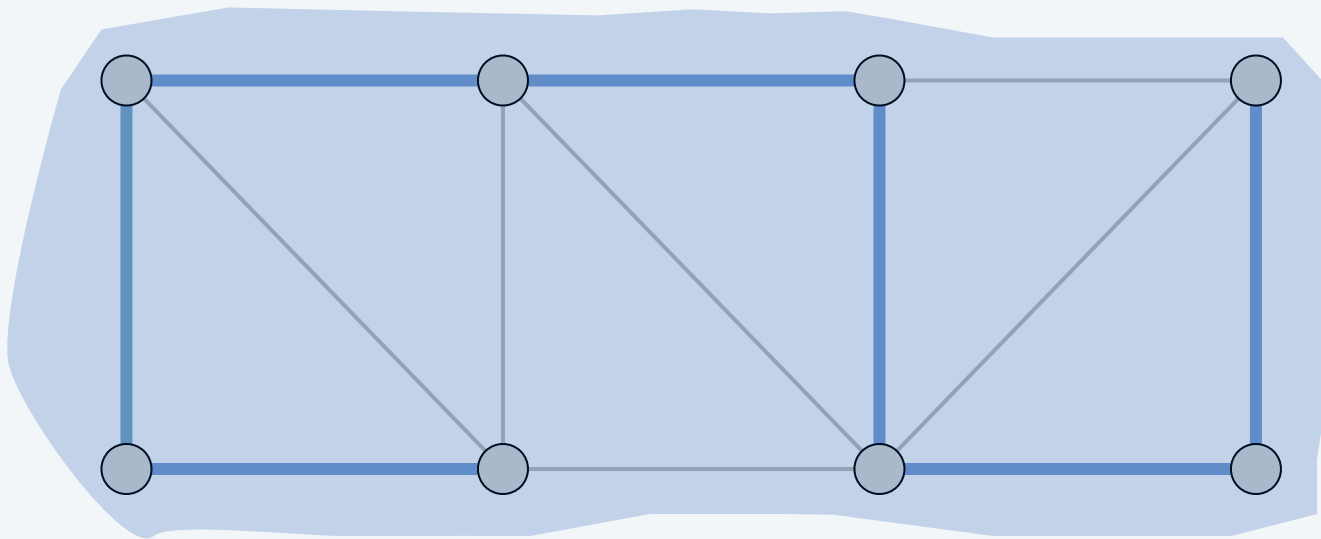


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