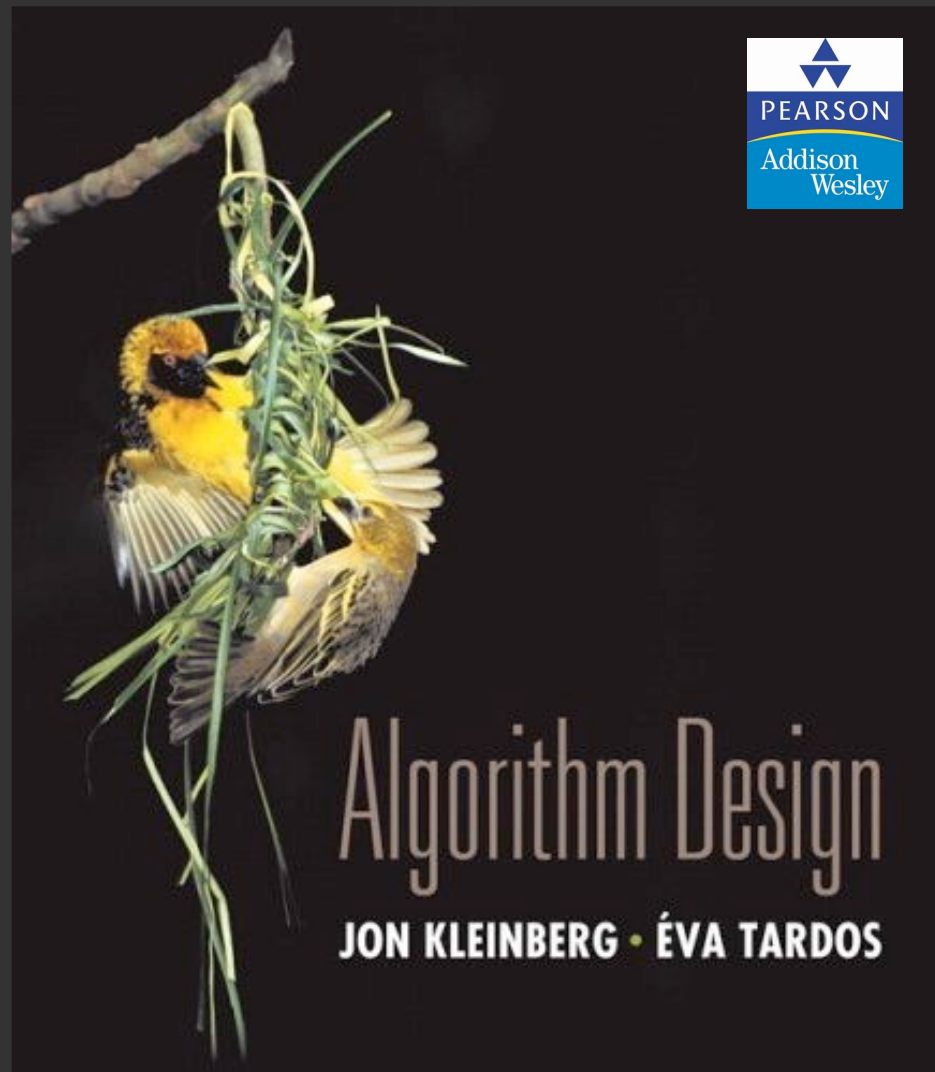


4. GREEDY ALGORITHMS II

► *Prim's algorithm demo*



Lecture slides by Kevin Wayne

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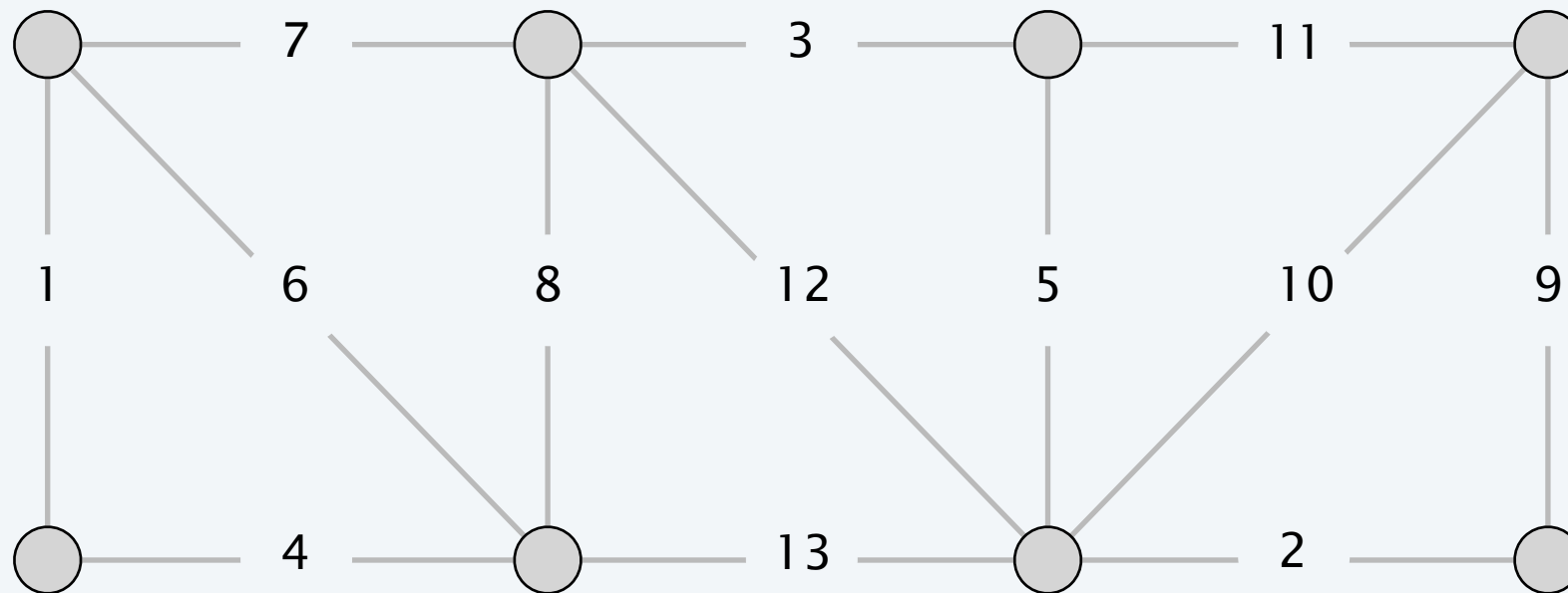
<http://www.cs.princeton.edu/~wayne/kleinberg-tardos>

Prim's algorithm demo

Initialize $S = \text{any node}$, $T = (V, \emptyset)$.

Repeat $n - 1$ times:

- Add to T a min-weight edge with one endpoint in S .
- Add new node to S .

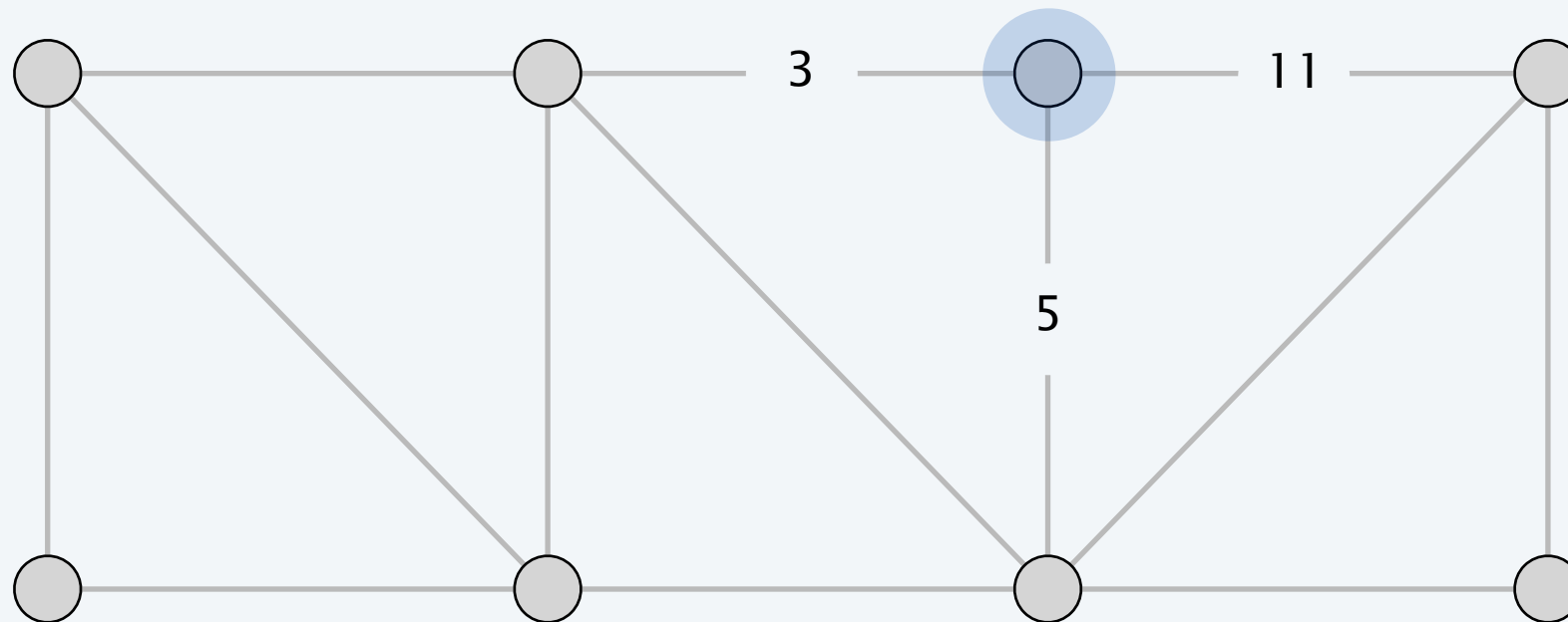


Prim's algorithm demo

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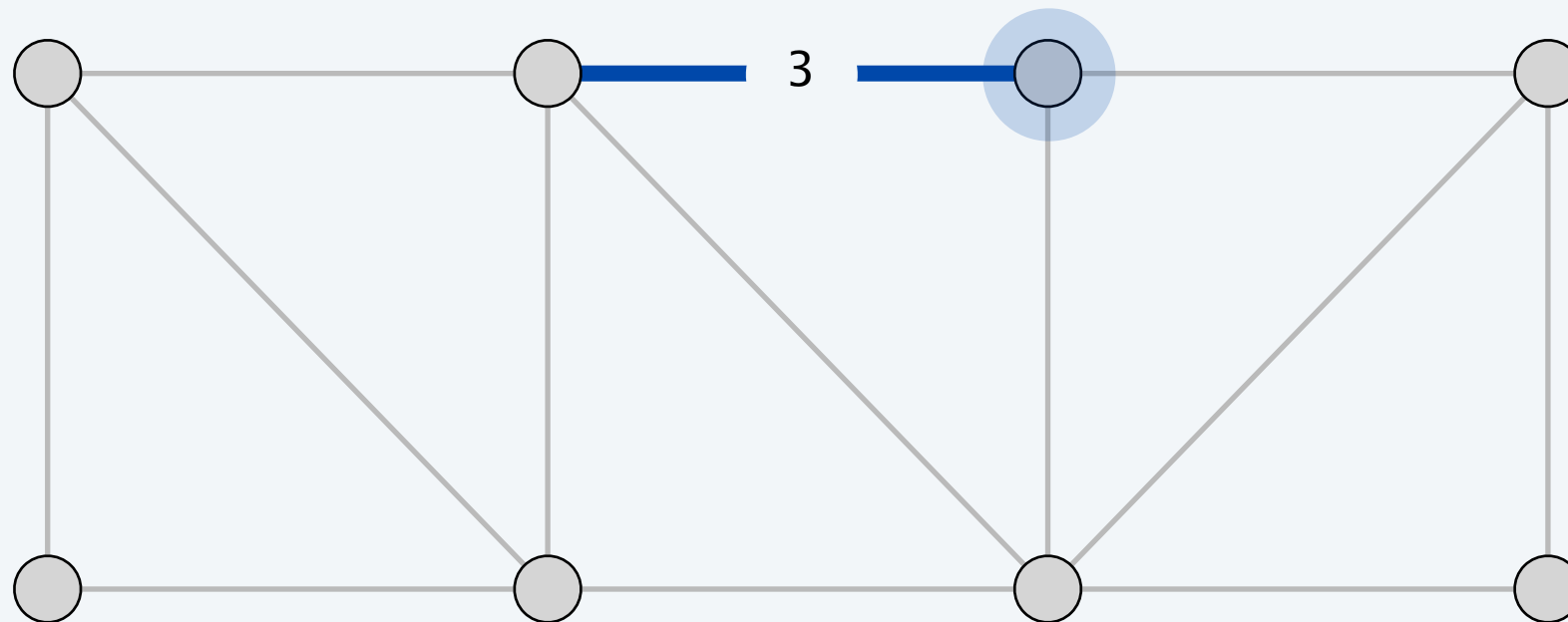


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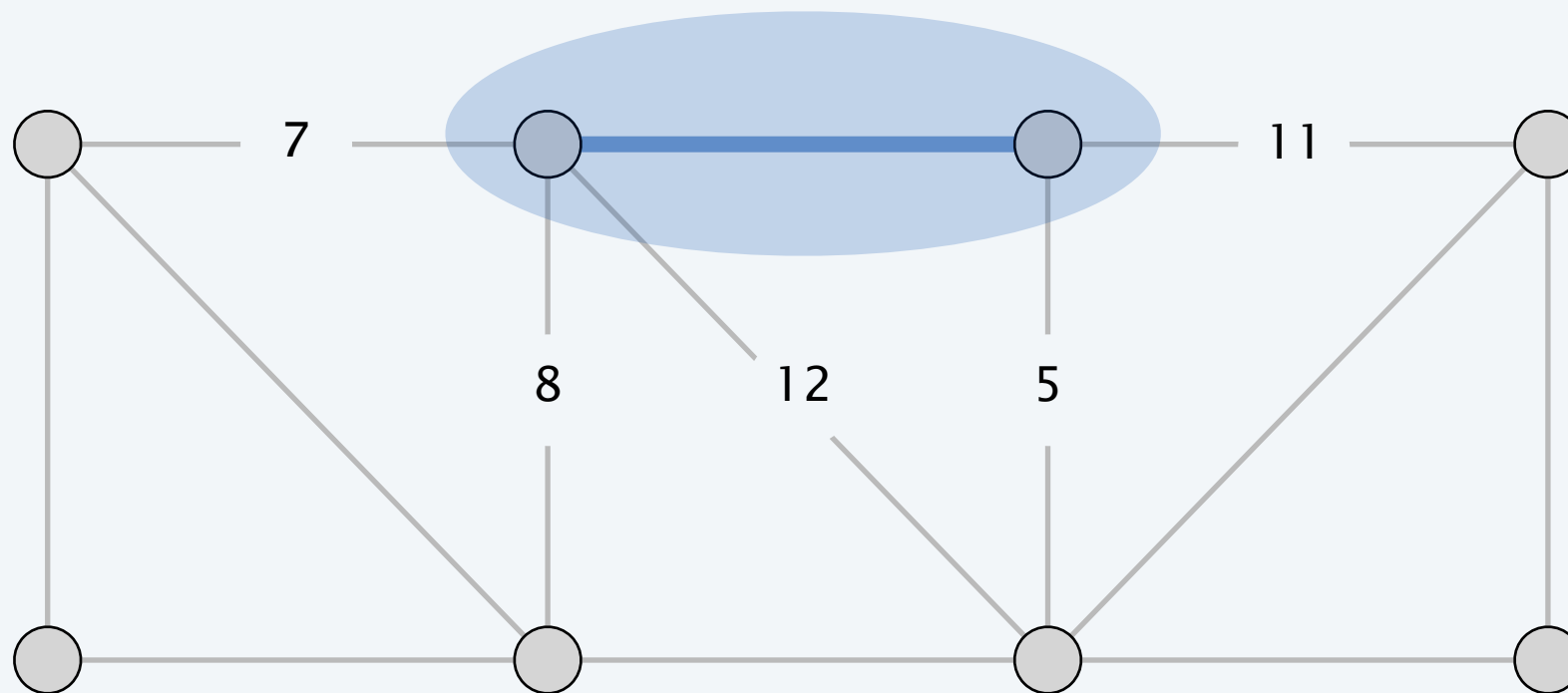


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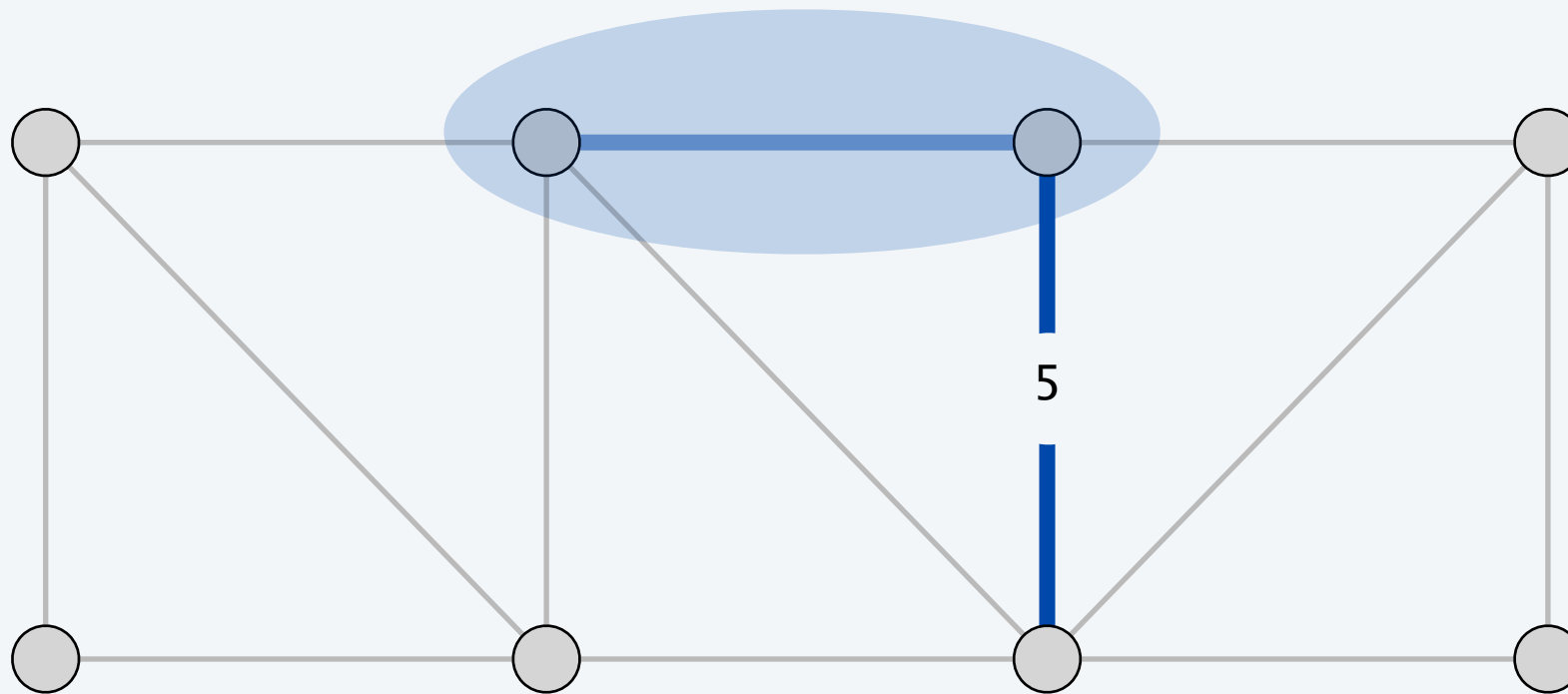


Prim's algorithm demo

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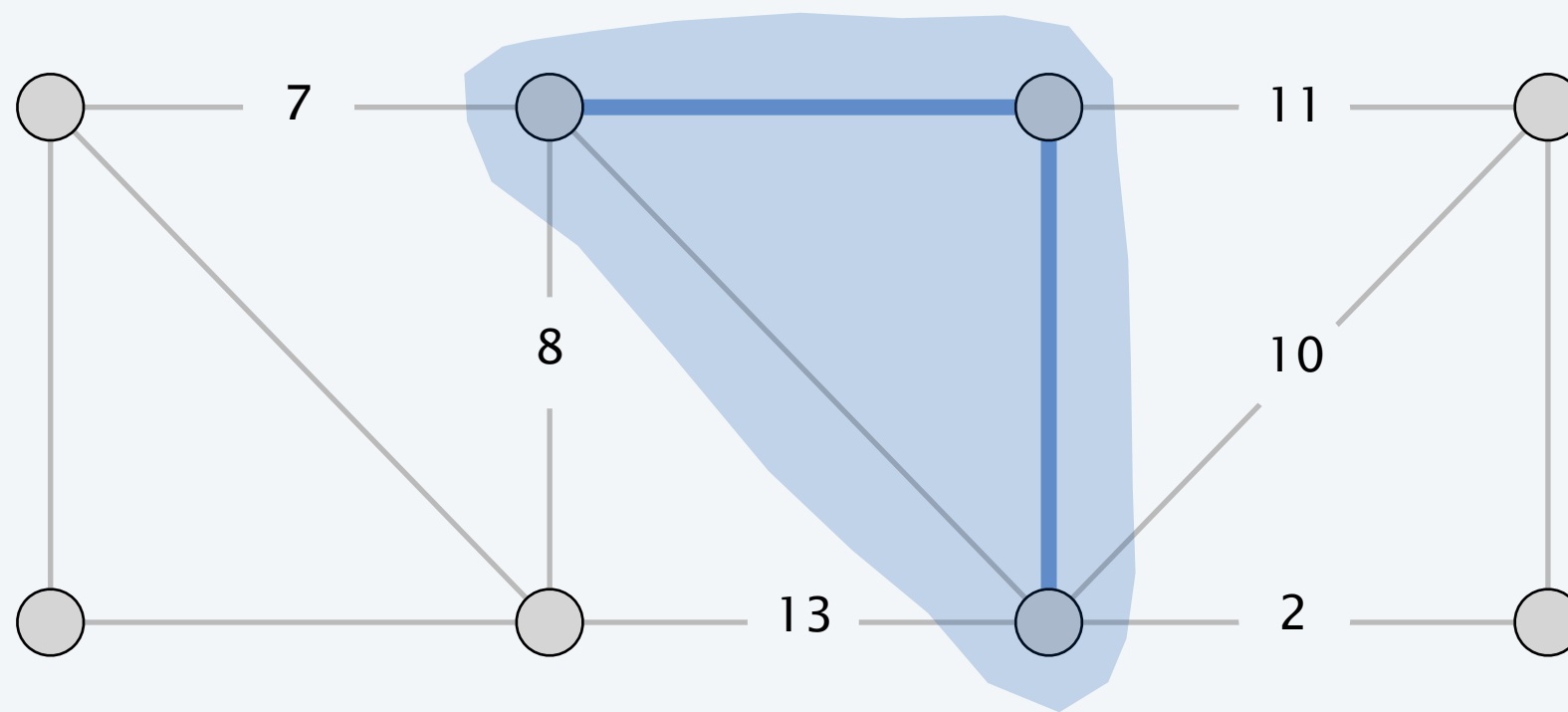


Prim's algorithm demo

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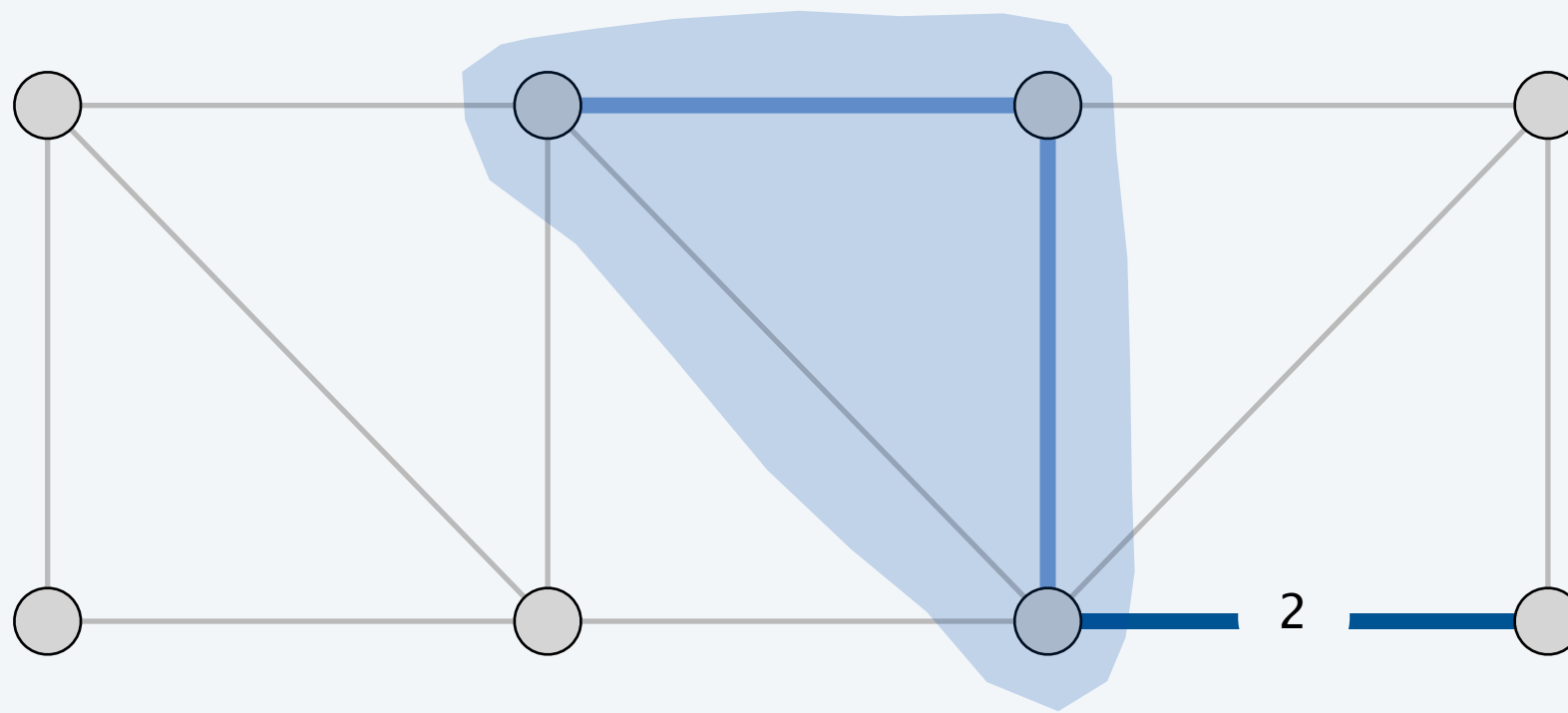


Prim's algorithm demo

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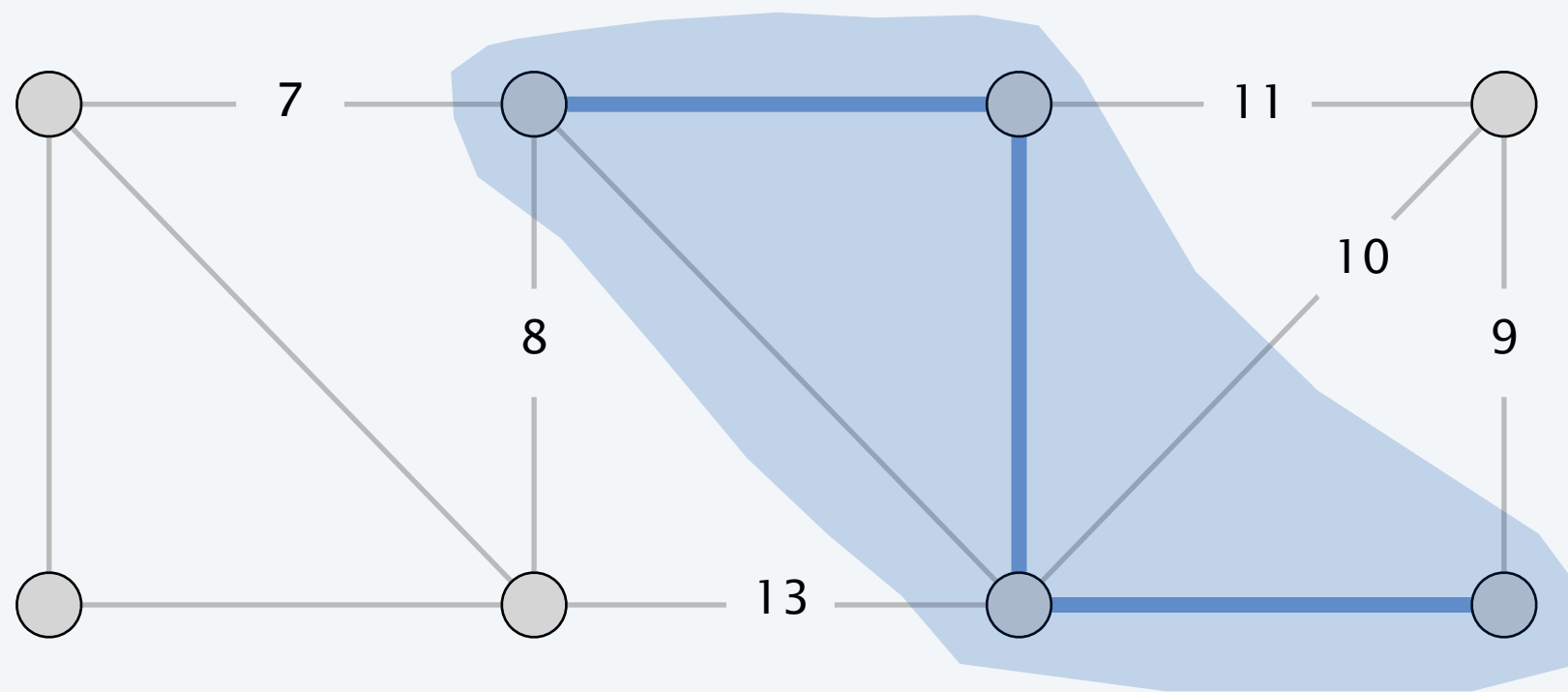


Prim's algorithm demo

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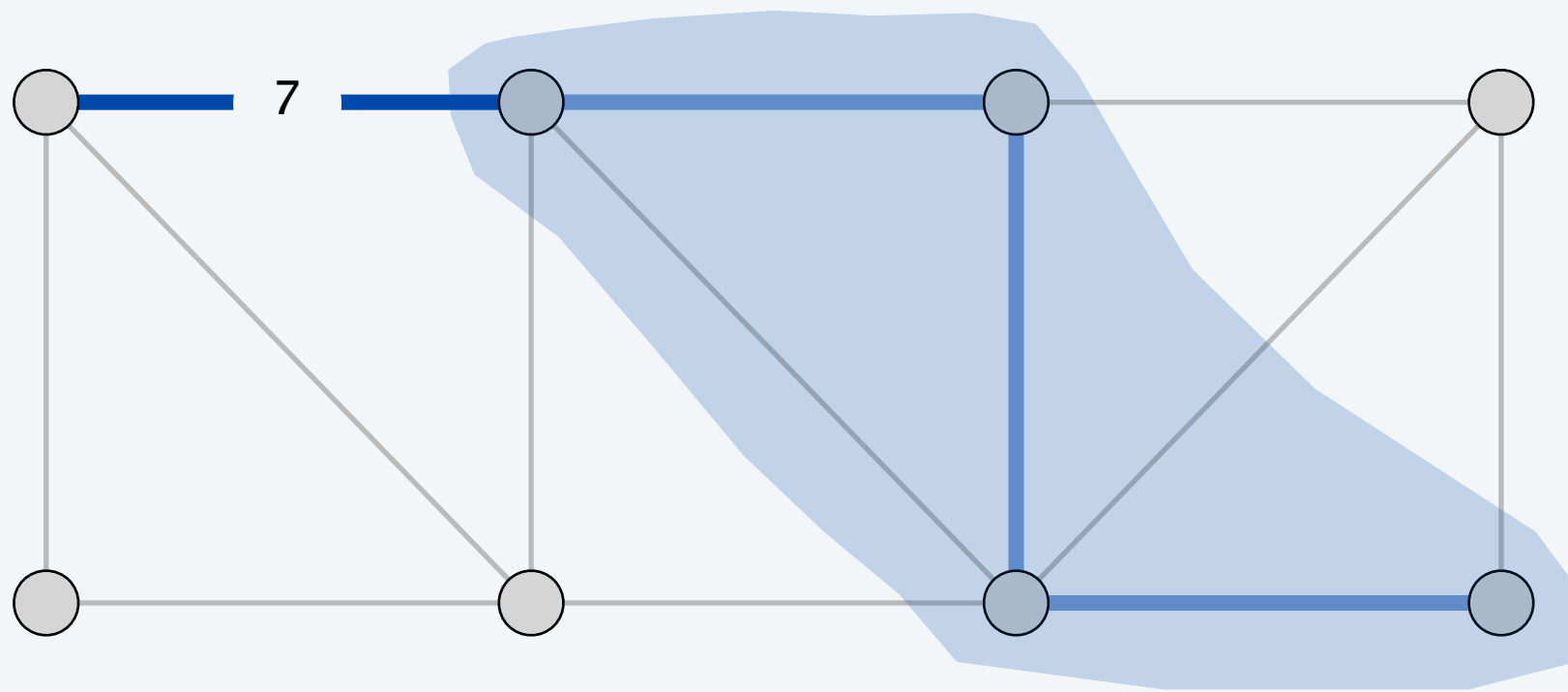


Prim's algorithm demo

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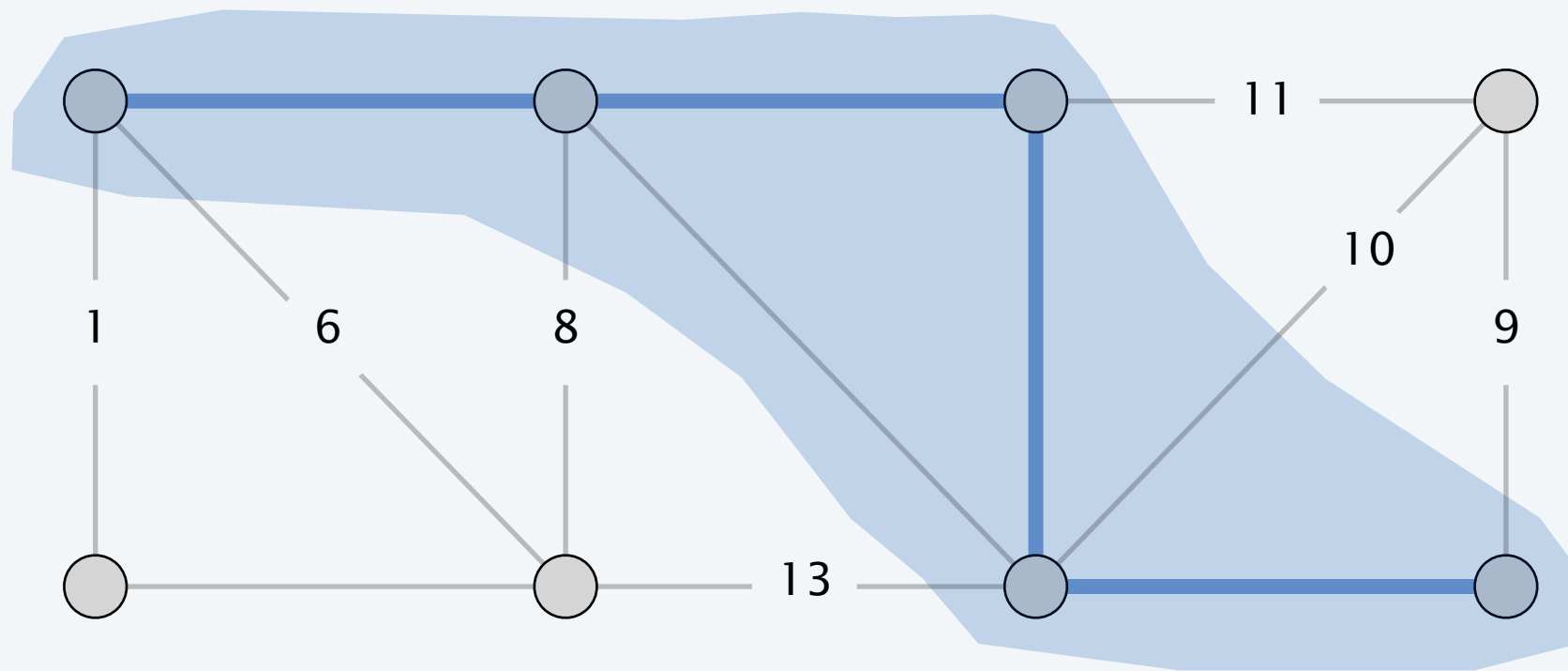


Prim's algorithm demo

Initialize $S = \text{any node}$, $T = (V, \emptyset)$.

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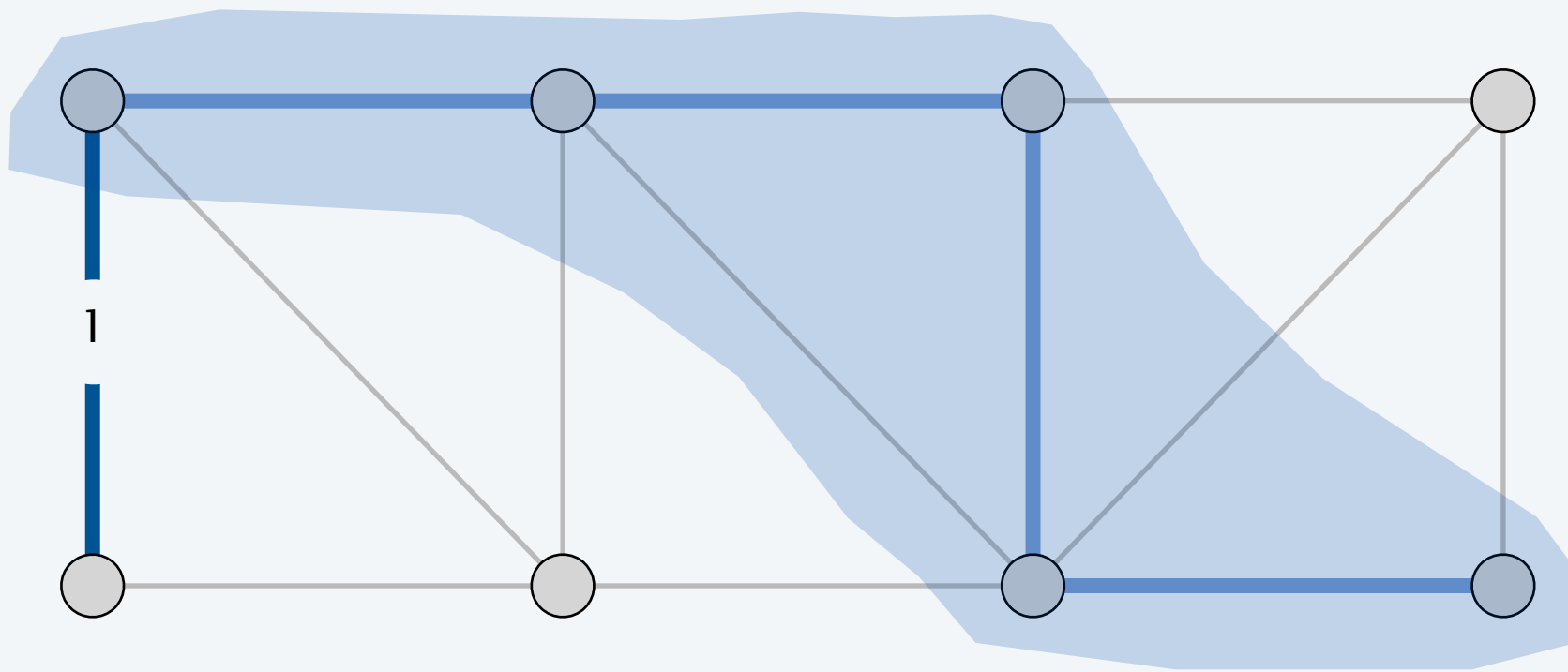


Prim's algorithm demo

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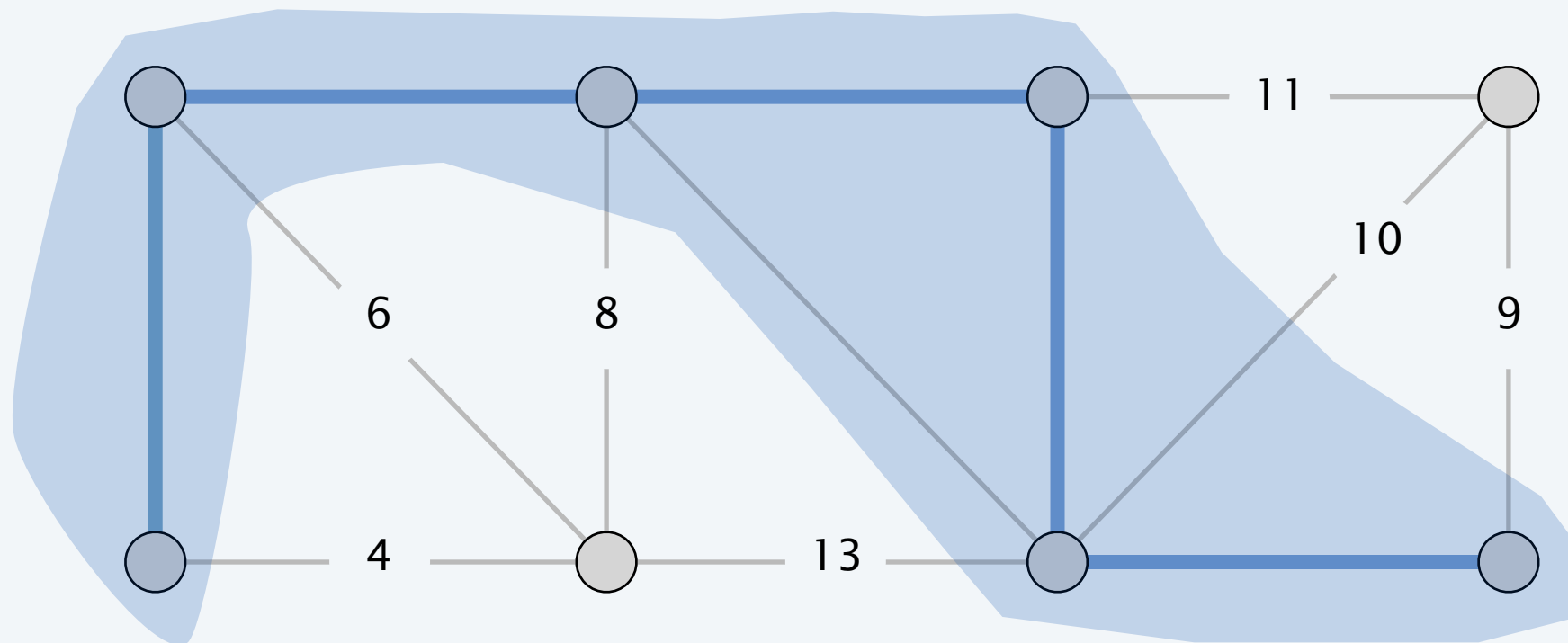


Prim's algorithm demo

Initialize $S = \text{any node}$, $T = (V, \emptyset)$.

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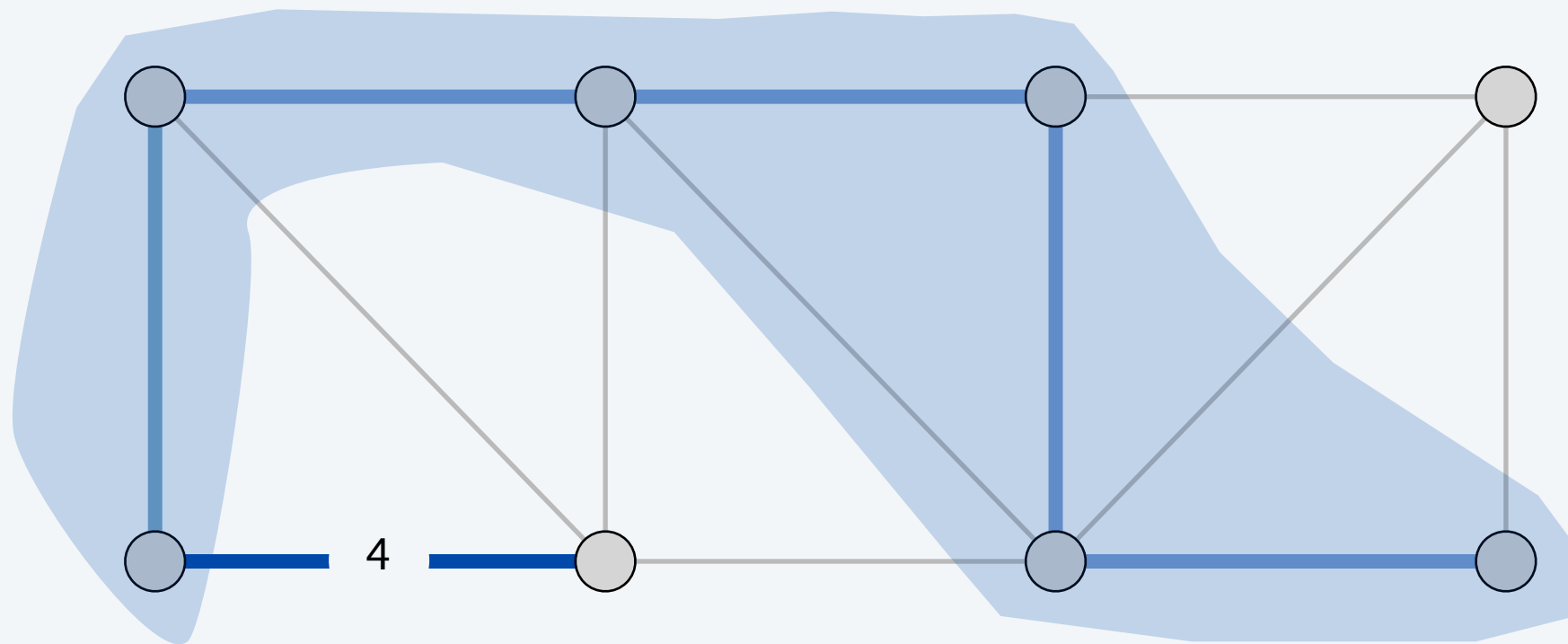


Prim's algorithm demo

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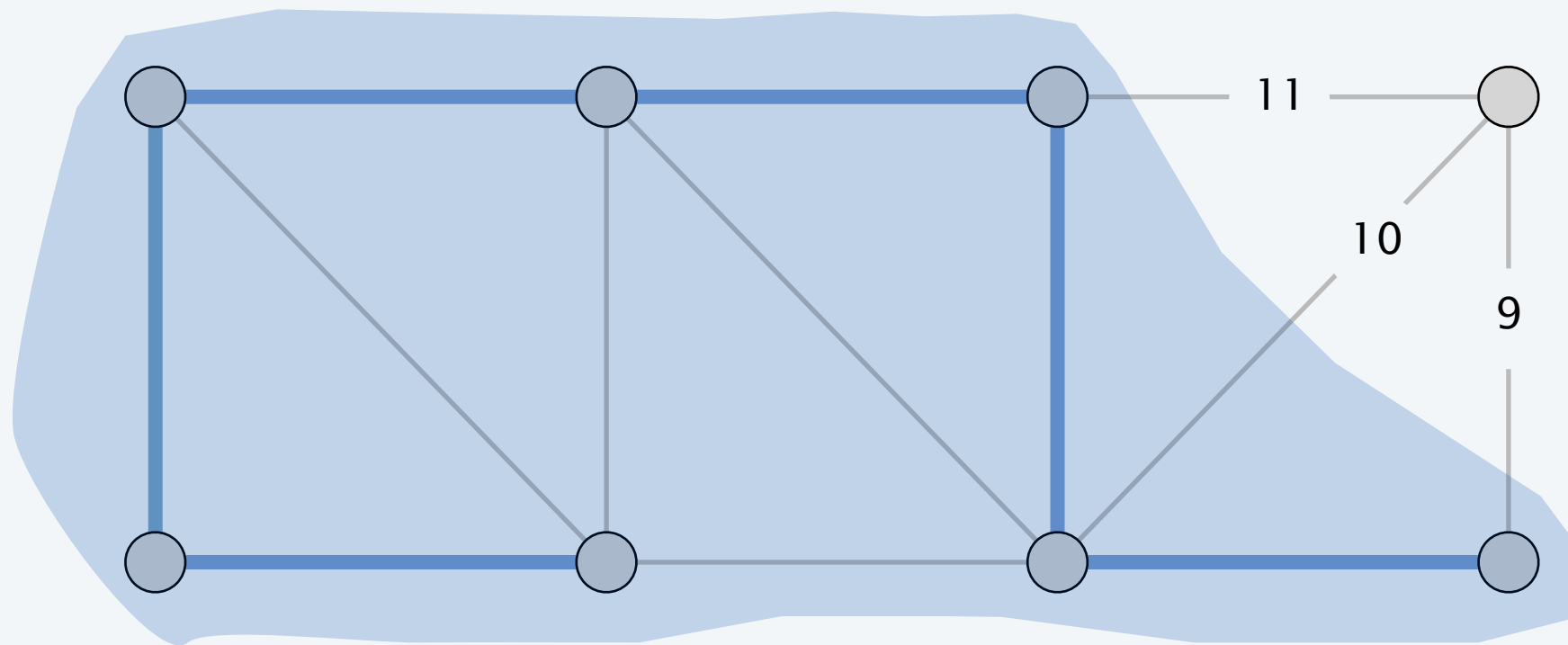


Prim's algorithm demo

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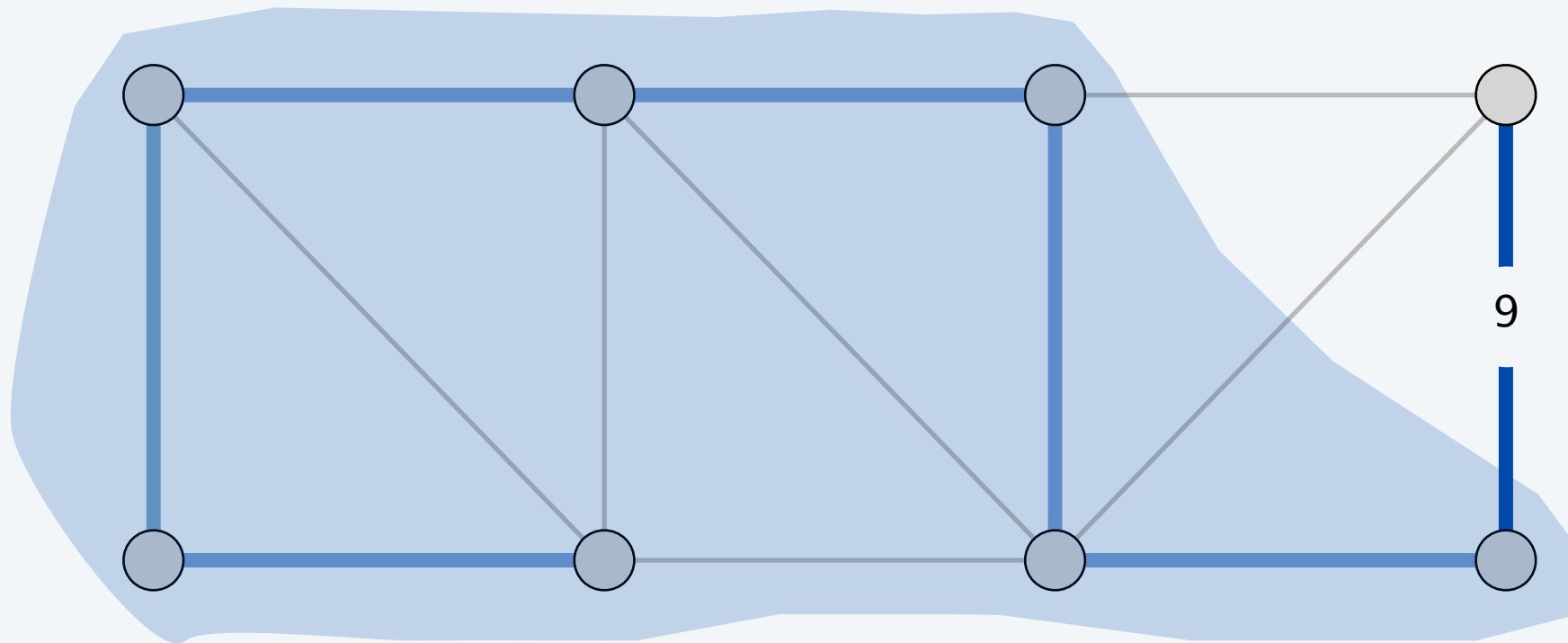


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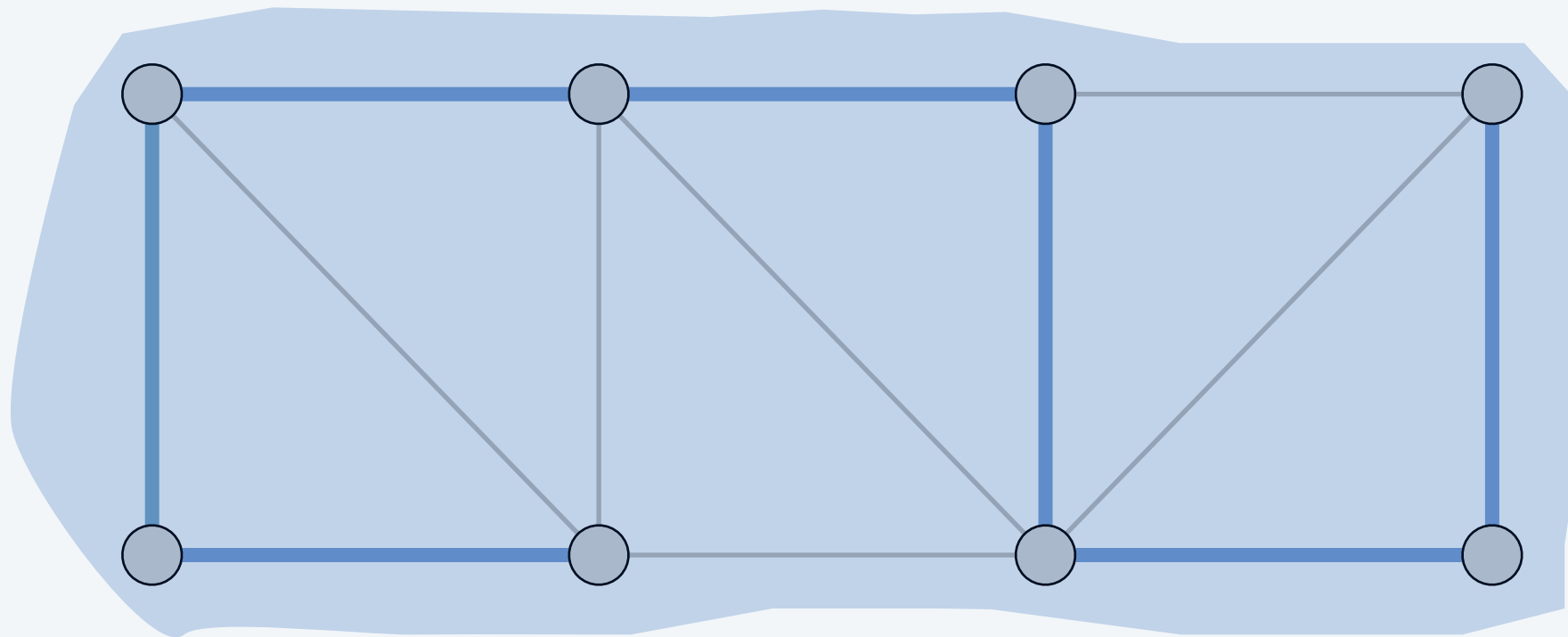


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