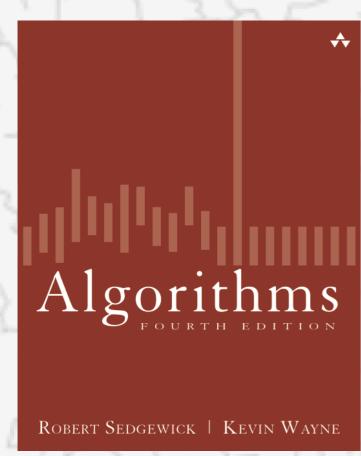
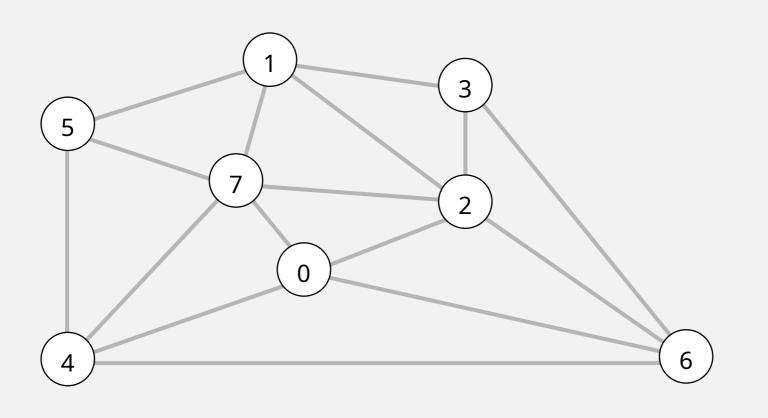
Algorithms



http://algs4.cs.princeton.edu

4.3 GREEDY MST DEMO

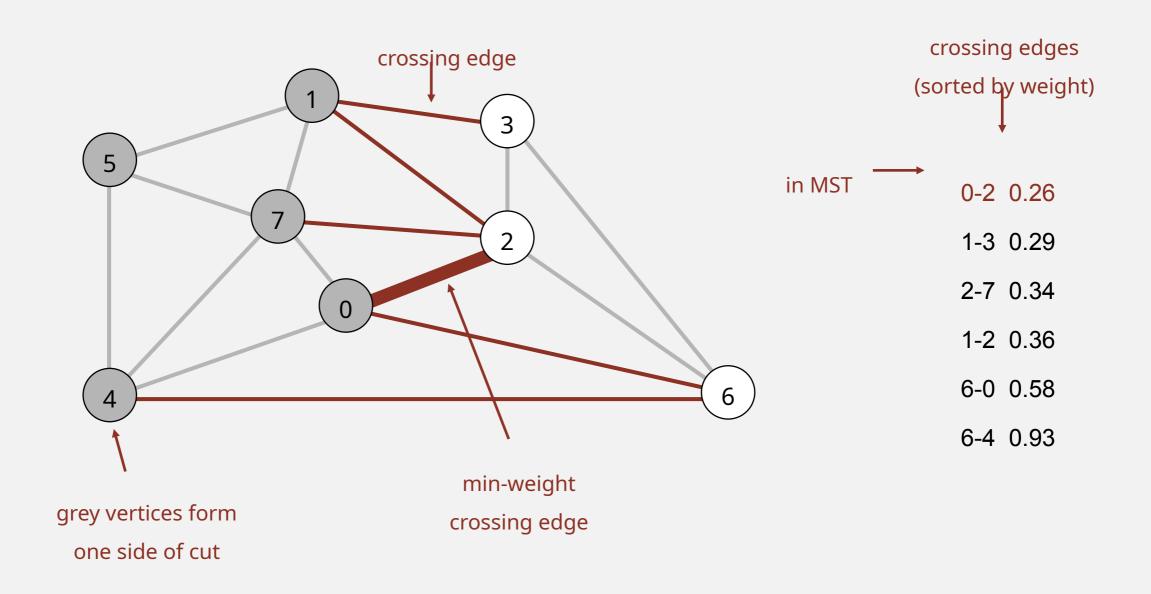
- Start with all edges colored gray.
- Find cut with no black crossing edges; color its min-weight edge black.
- Repeat until V 1 edges are colored black.



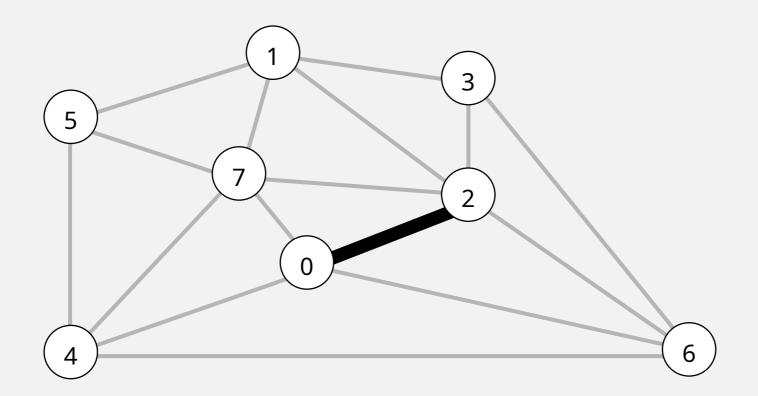
an edge-weighted graph

- 0-7 0.16
- 2-3 0.17
- 1-7 0.19
- 0-2 0.26
- 5-7 0.28
- 1-3 0.29
- 1-5 0.32
- 2-7 0.34
- 4-5 0.35
- 1-2 0.36
- 4-7 0.37
- 0-4 0.38
- 6-2 0.40
- 3 6 O 52

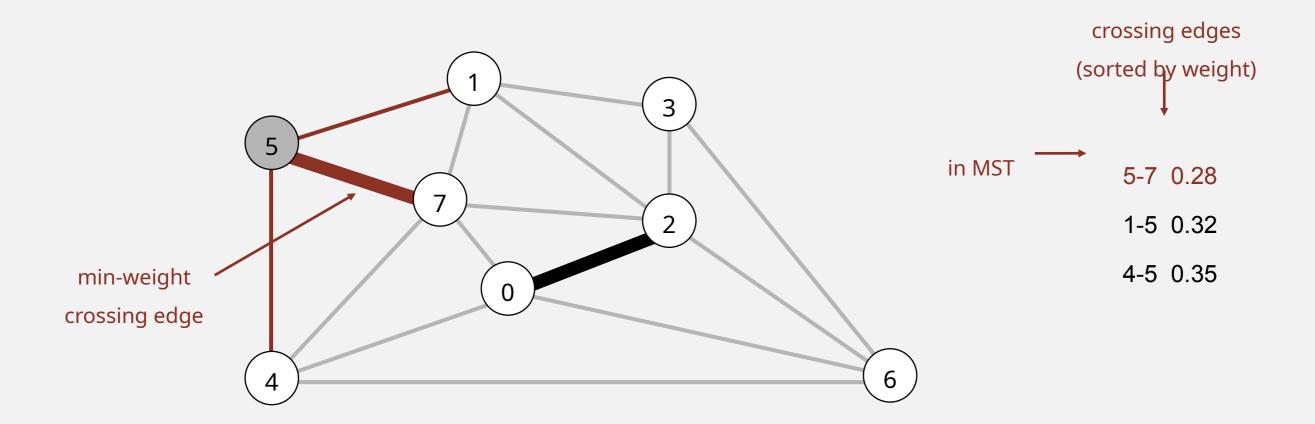
- Start with all edges colored gray.
- Find cut with no black crossing edges; color its min-weight edge black.
- Repeat until V 1 edges are colored black.



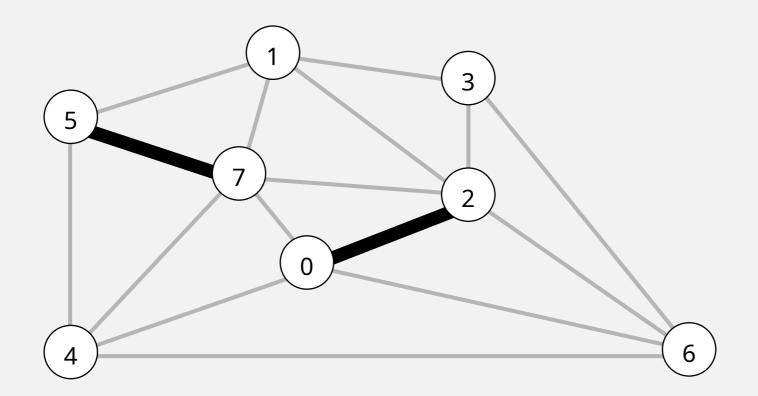
- Start with all edges colored gray.
- Find cut with no black crossing edges; color its min-weight edge black.
- Repeat until V 1 edges are colored black.



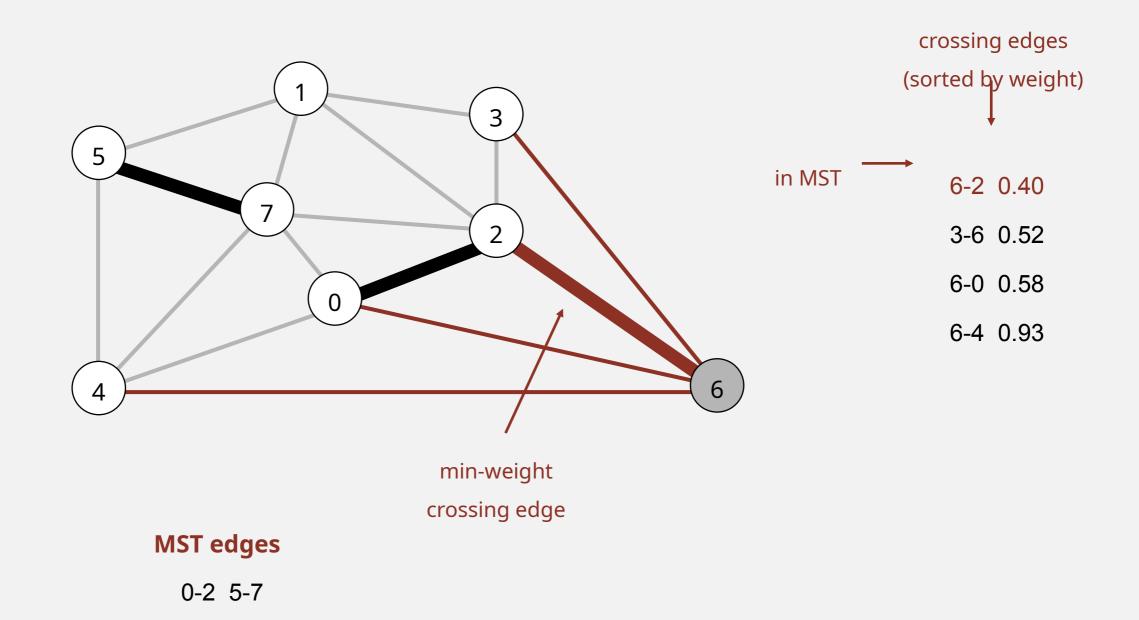
- Start with all edges colored gray.
- Find cut with no black crossing edges; color its min-weight edge black.
- Repeat until V 1 edges are colored black.



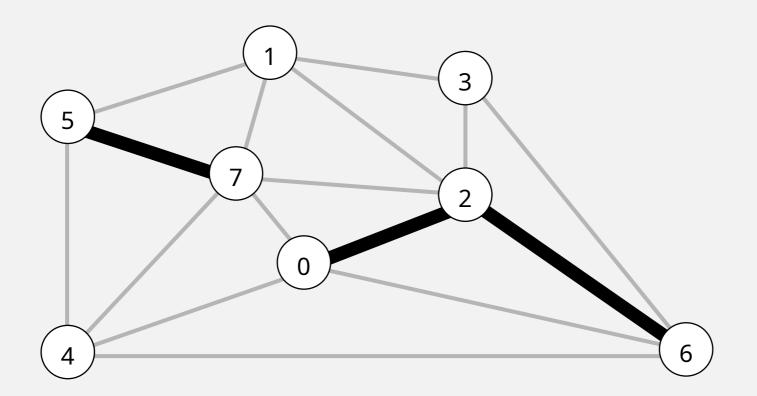
- Start with all edges colored gray.
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- Repeat until V 1 edges are colored black.



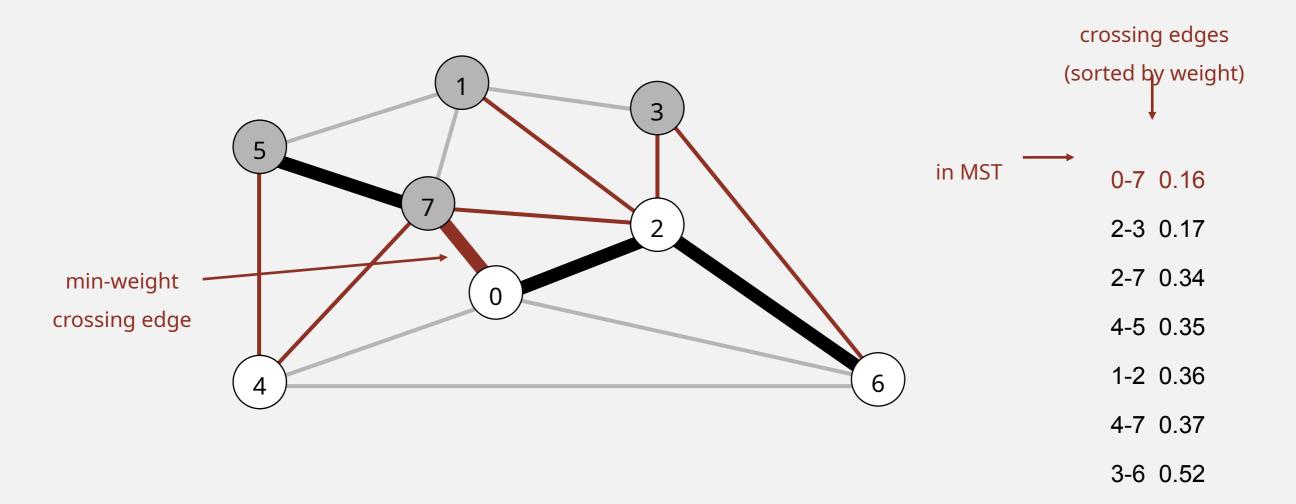
- Start with all edges colored gray.
- Find cut with no black crossing edges; color its min-weight edge black.
- Repeat until V 1 edges are colored black.



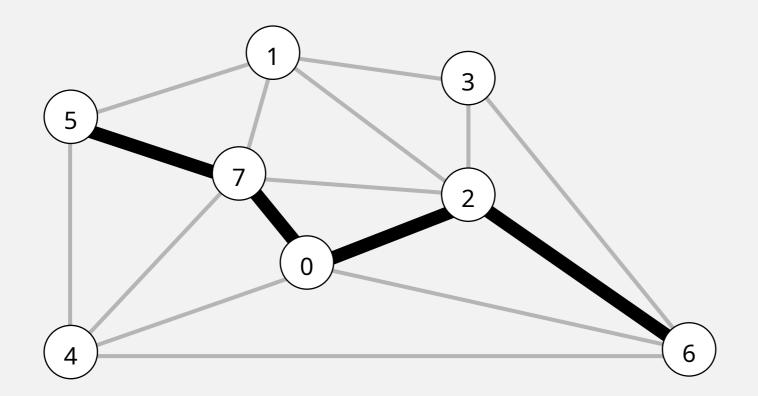
- Start with all edges colored gray.
- Find cut with no black crossing edges; color its min-weight edge black.
- Repeat until V 1 edges are colored black.



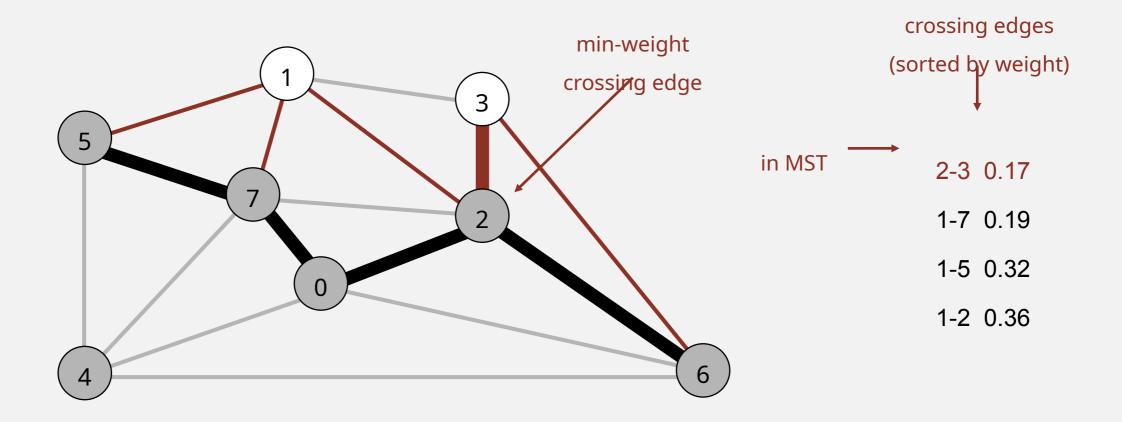
- Start with all edges colored gray.
- Find cut with no black crossing edges; color its min-weight edge black.
- Repeat until V 1 edges are colored black.



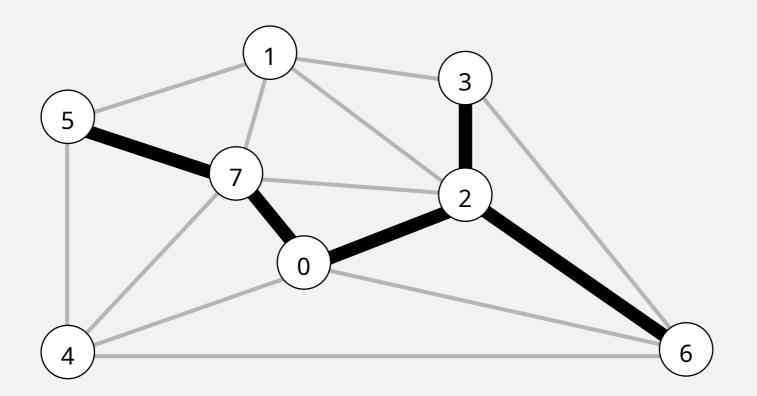
- Start with all edges colored gray.
- Find cut with no black crossing edges; color its min-weight edge black.
- Repeat until V 1 edges are colored black.



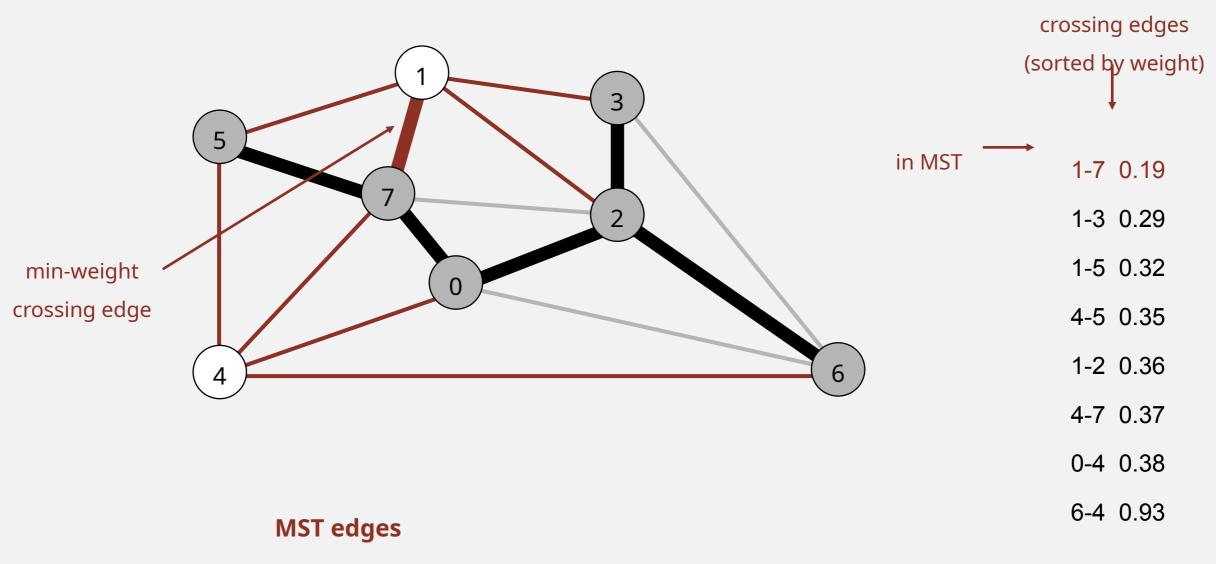
- Start with all edges colored gray.
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- Start with all edges colored gray.
- Find cut with no black crossing edges; color its min-weight edge black.
- Repeat until V 1 edges are colored black.

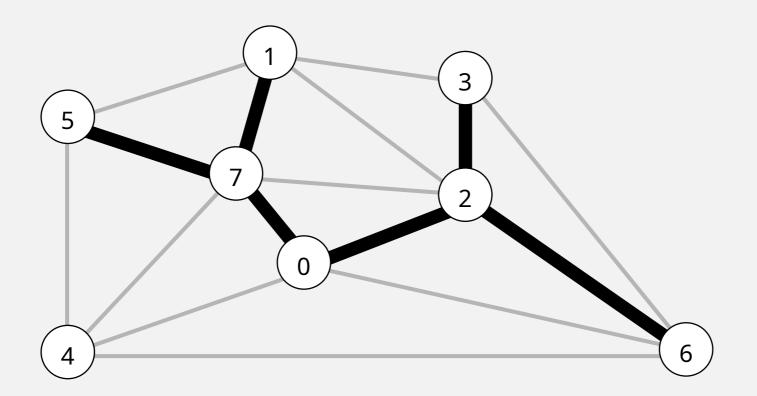


- Start with all edges colored gray.
- Find cut with no black crossing edges; color its min-weight edge black.
- Repeat until V 1 edges are colored black.



0-2 5-7 6-2 0-7 2-3

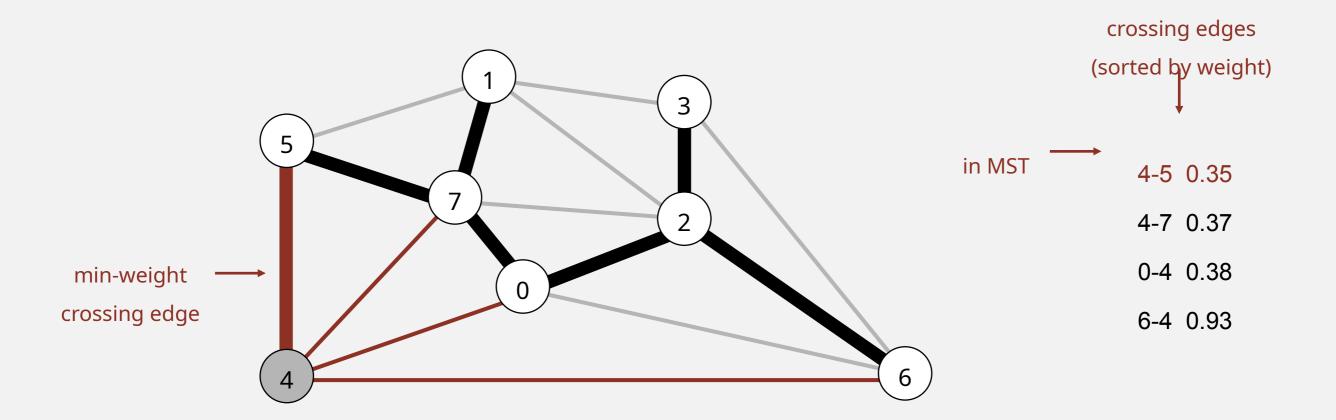
- Start with all edges colored gray.
- Find cut with no black crossing edges; color its min-weight edge black.
- Repeat until V 1 edges are colored black.



MST edges

0-2 5-7 6-2 0-7 2-3 1-7

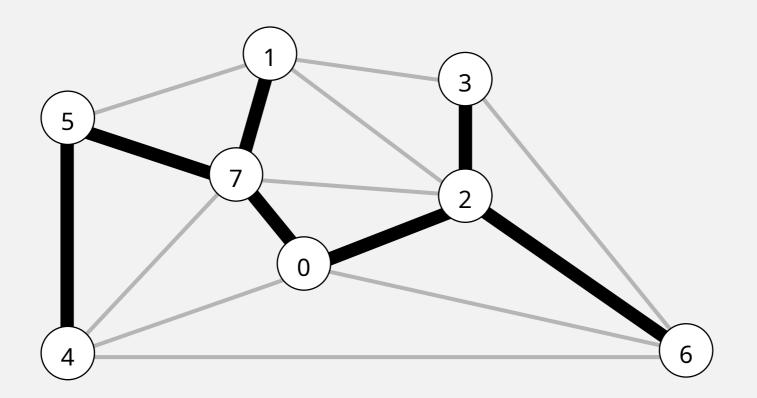
- Start with all edges colored gray.
- Find cut with no black crossing edges; color its min-weight edge black.
- Repeat until V 1 edges are colored black.



MST edges

0-2 5-7 6-2 0-7 2-3 1-7

- Start with all edges colored gray.
- Find cut with no black crossing edges; color its min-weight edge black.
- Repeat until V 1 edges are colored black.



MST edges

0-2 5-7 6-2 0-7 2-3 1-7 4-5