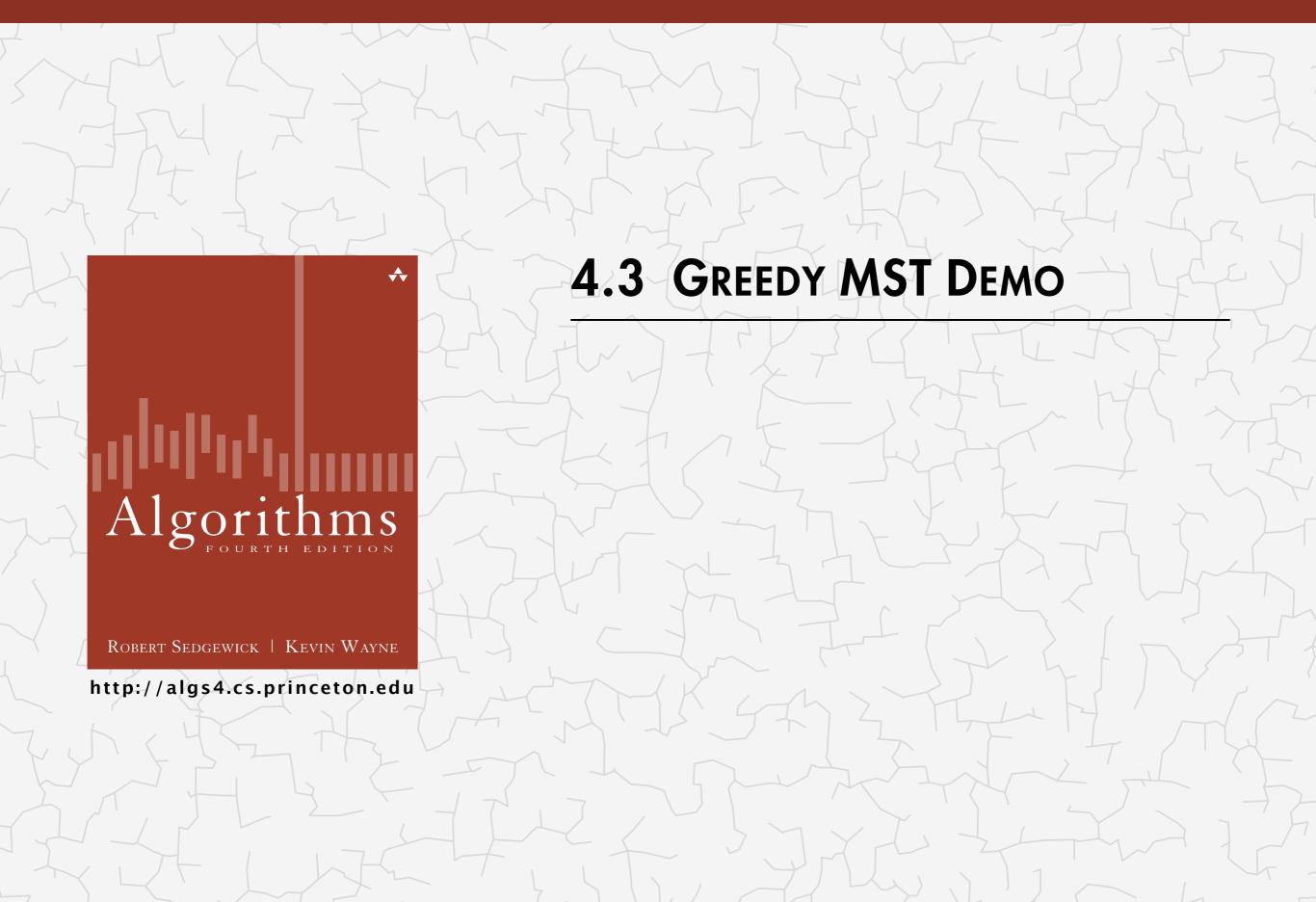
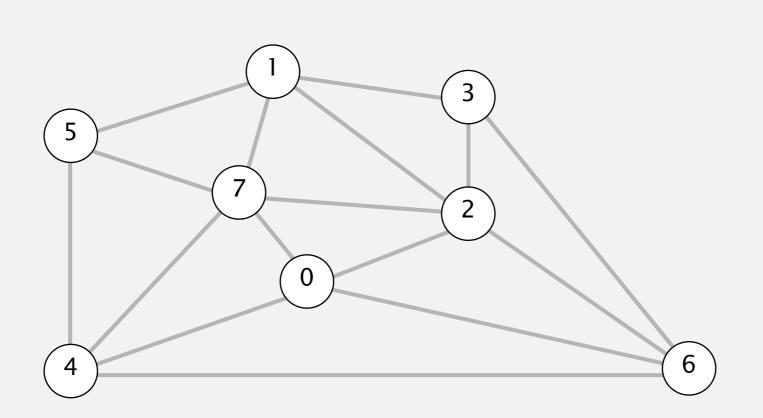
# Algorithms



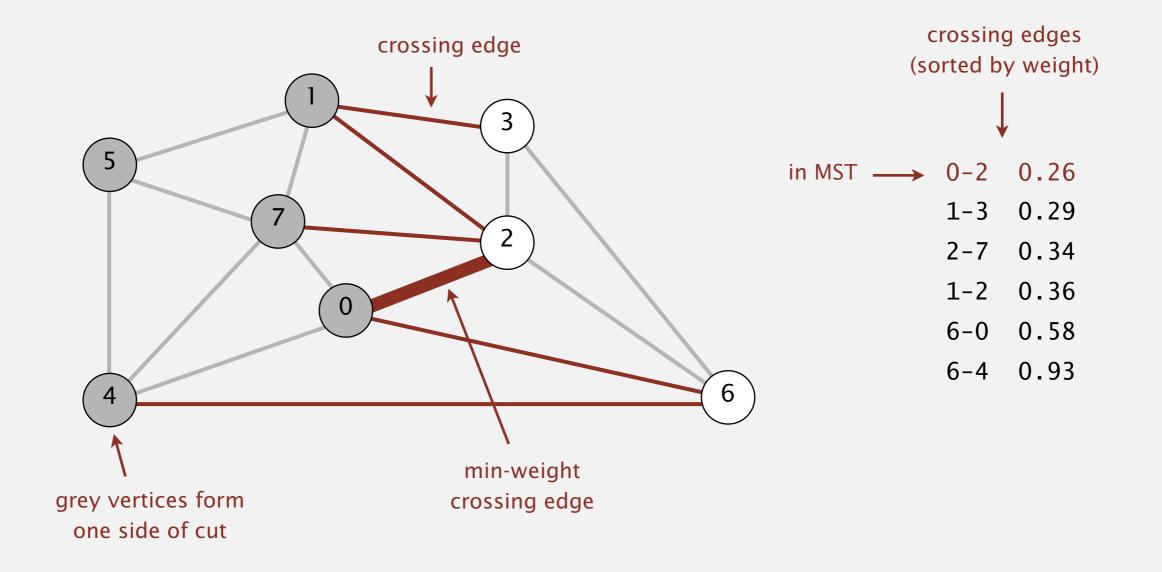
- Start with all edges colored gray.
- Find cut with no black crossing edges; color its min-weight edge black.
- Repeat until V-1 edges are colored black.



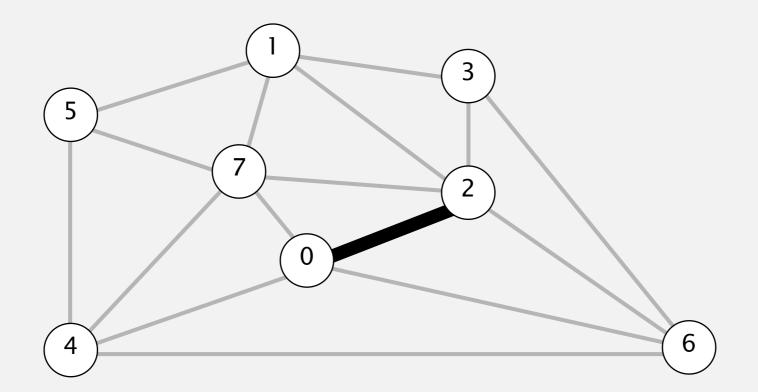
an edge-weighted graph

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	0.52
6-0	0.58
6-4	0.93

- 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.



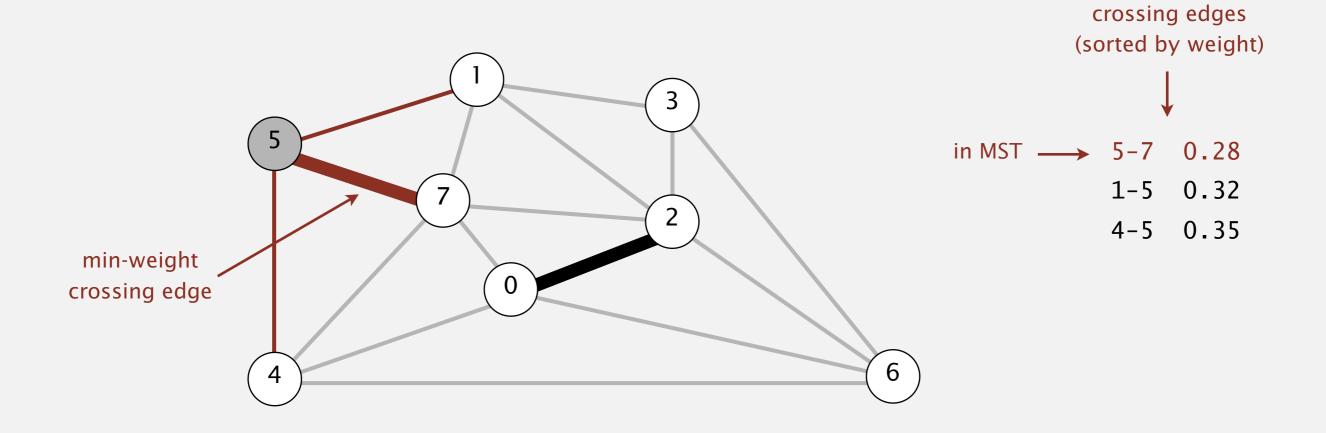
- Start with all edges colored gray.
- Find cut with no black crossing edges; color its min-weight edge black.
- Repeat until V-1 edges are colored black.



**MST edges** 

0-2

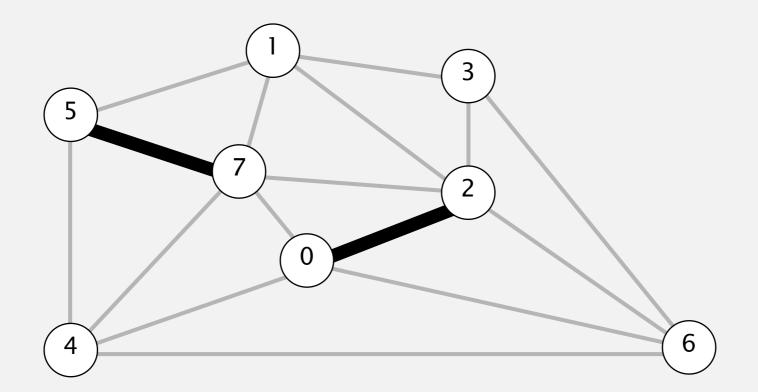
- Start with all edges colored gray.
- Find cut with no black crossing edges; color its min-weight edge black.
- Repeat until V-1 edges are colored black.



**MST** edges

0 - 2

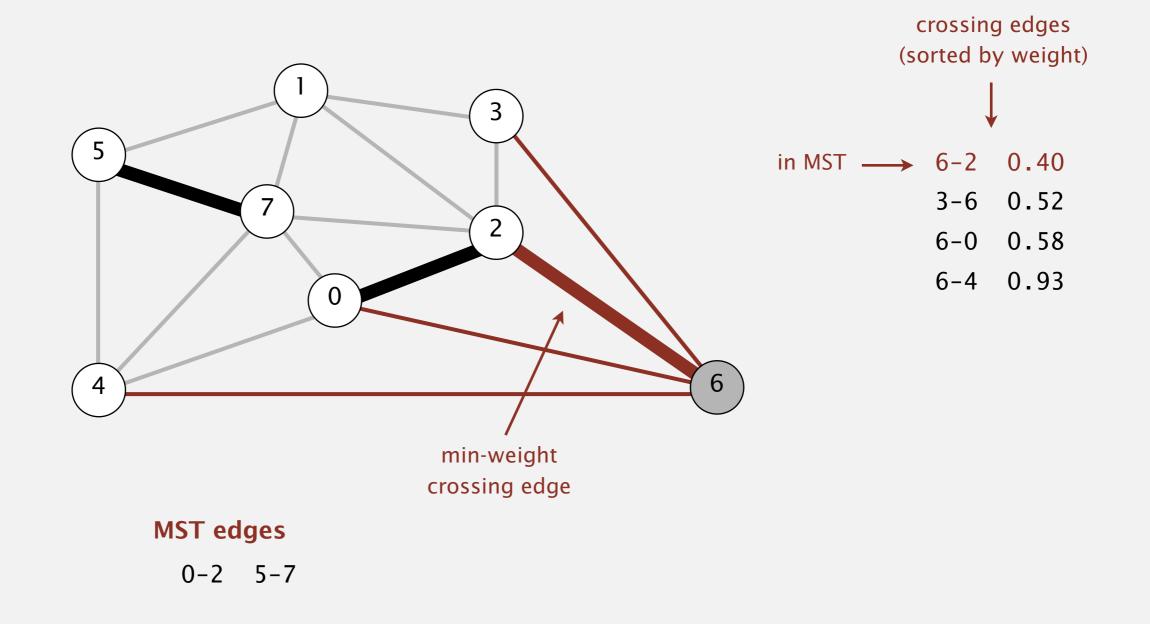
- Start with all edges colored gray.
- Find cut with no black crossing edges; color its min-weight edge black.
- Repeat until V-1 edges are colored black.



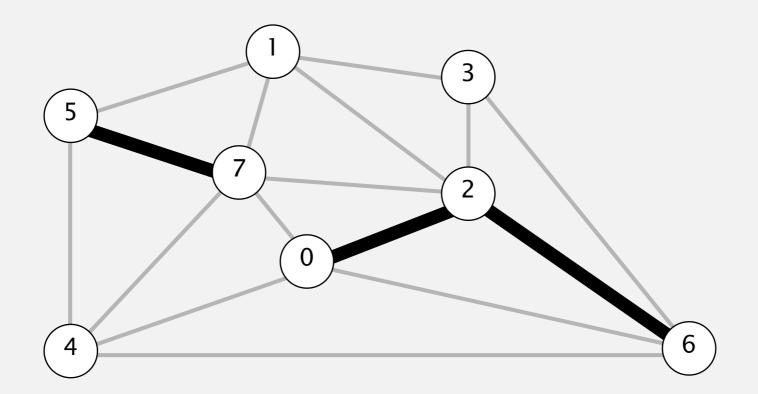
### **MST edges**

0-2 5-7

- 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.



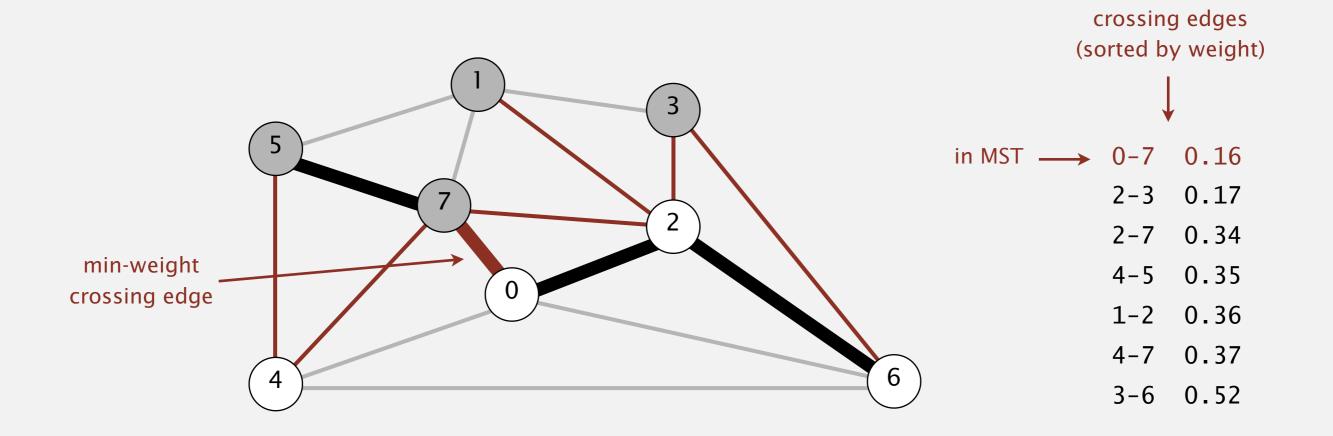
- Start with all edges colored gray.
- Find cut with no black crossing edges; color its min-weight edge black.
- Repeat until V-1 edges are colored black.



### **MST edges**

0-2 5-7 6-2

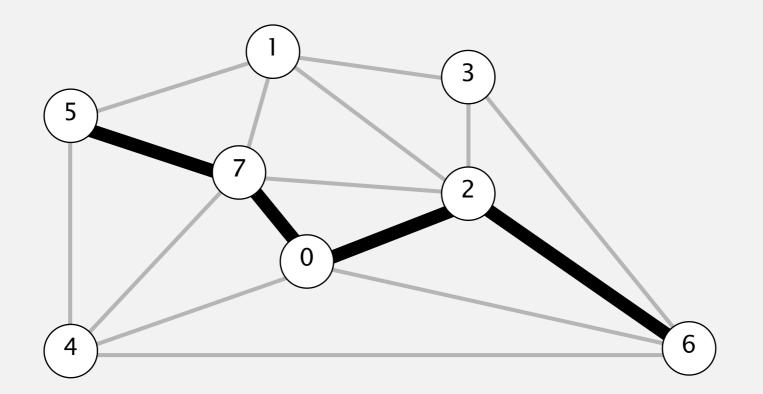
- Start with all edges colored gray.
- Find cut with no black crossing edges; color its min-weight edge black.
- Repeat until V-1 edges are colored black.



#### **MST** edges

0-2 5-7 6-2

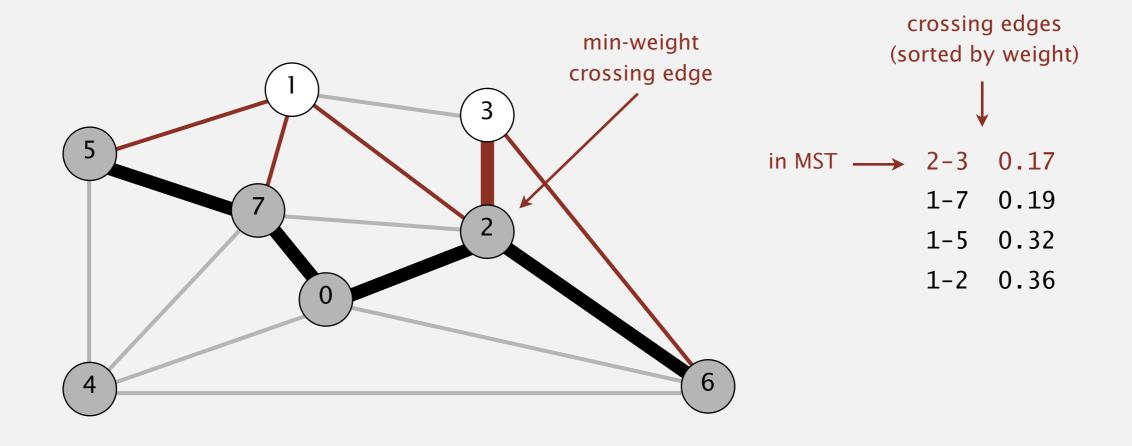
- Start with all edges colored gray.
- Find cut with no black crossing edges; color its min-weight edge black.
- Repeat until V-1 edges are colored black.



### **MST edges**

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

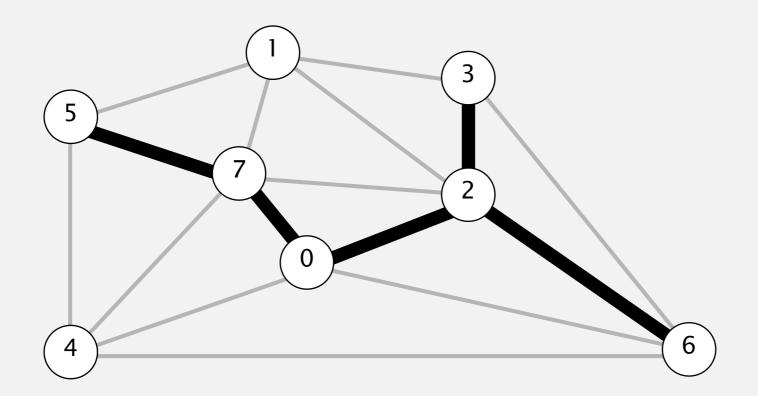
- Start with all edges colored gray.
- Find cut with no black crossing edges; color its min-weight edge black.
- Repeat until V-1 edges are colored black.



#### **MST** edges

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

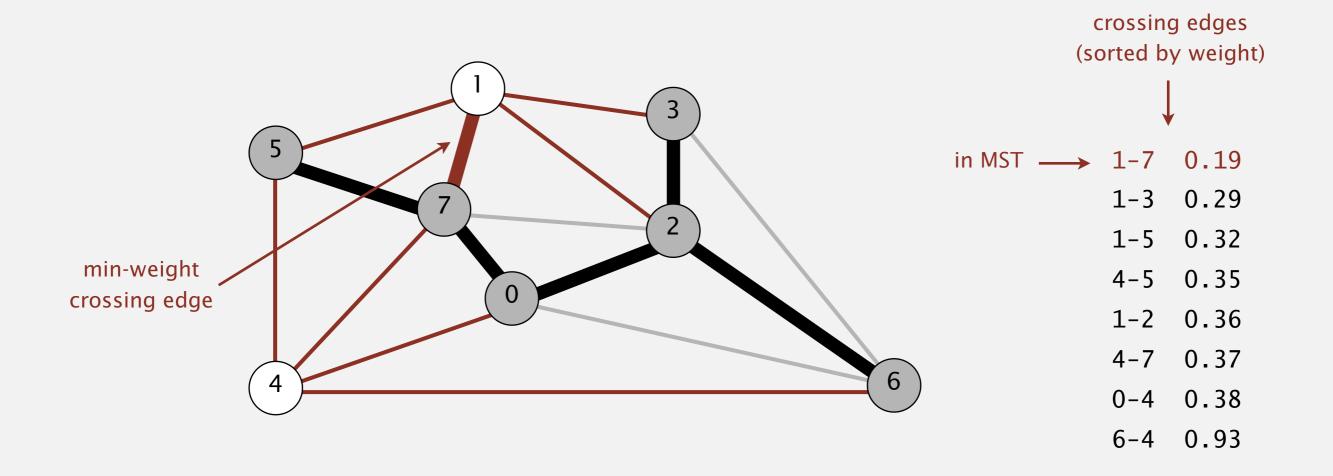
- Start with all edges colored gray.
- Find cut with no black crossing edges; color its min-weight edge black.
- Repeat until V-1 edges are colored black.



### **MST edges**

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

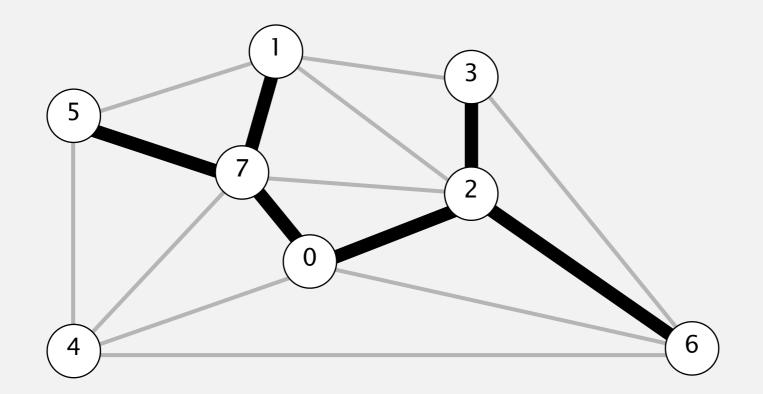
- Start with all edges colored gray.
- Find cut with no black crossing edges; color its min-weight edge black.
- Repeat until V-1 edges are colored black.



#### **MST** edges

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

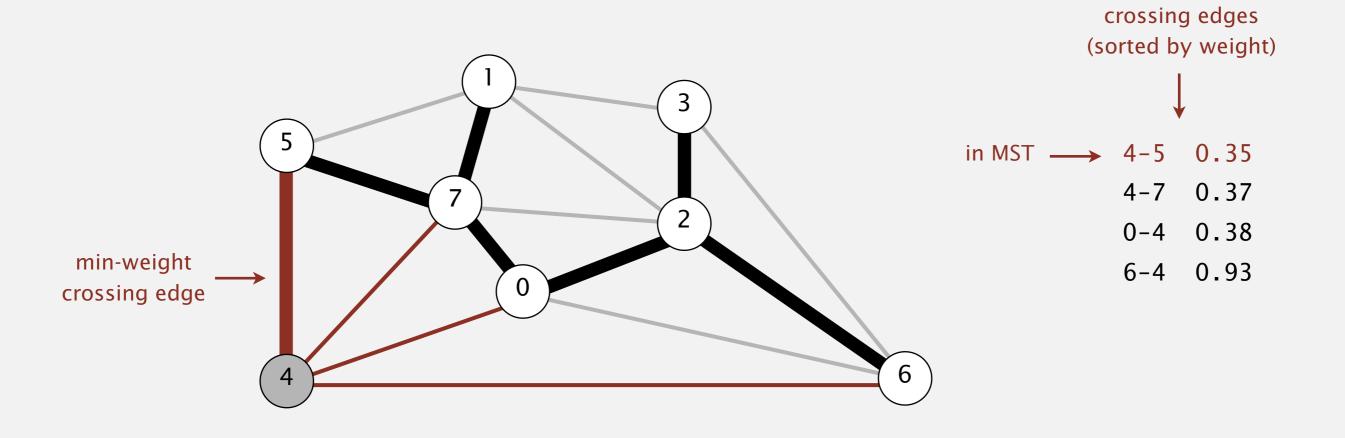
- Start with all edges colored gray.
- Find cut with no black crossing edges; color its min-weight edge black.
- Repeat until V-1 edges are colored black.



### **MST edges**

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

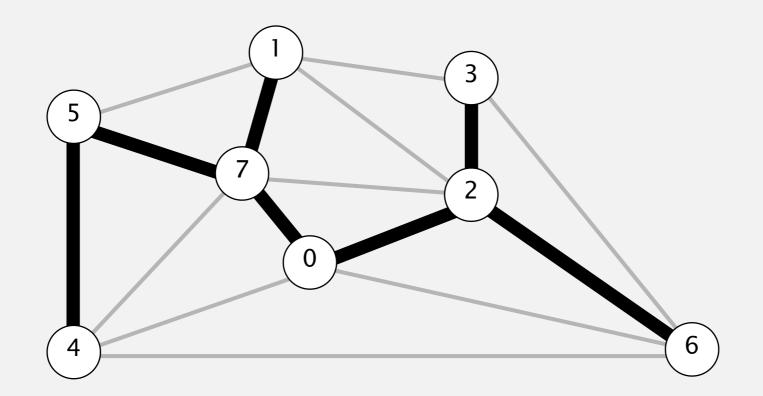
- Start with all edges colored gray.
- Find cut with no black crossing edges; color its min-weight edge black.
- Repeat until V-1 edges are colored black.



#### **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