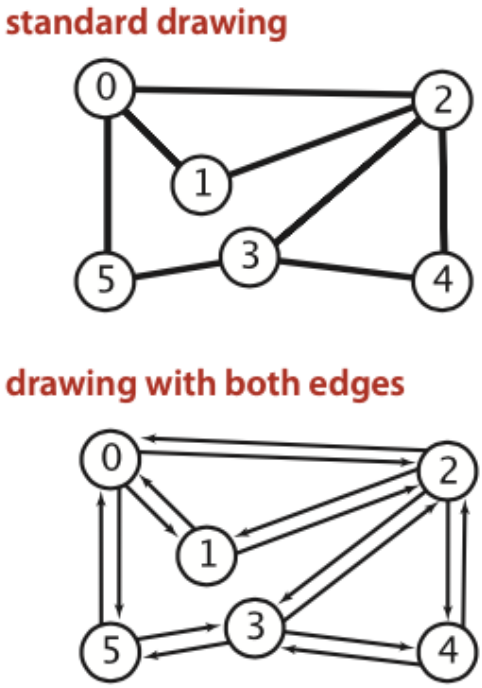
Demo BFS

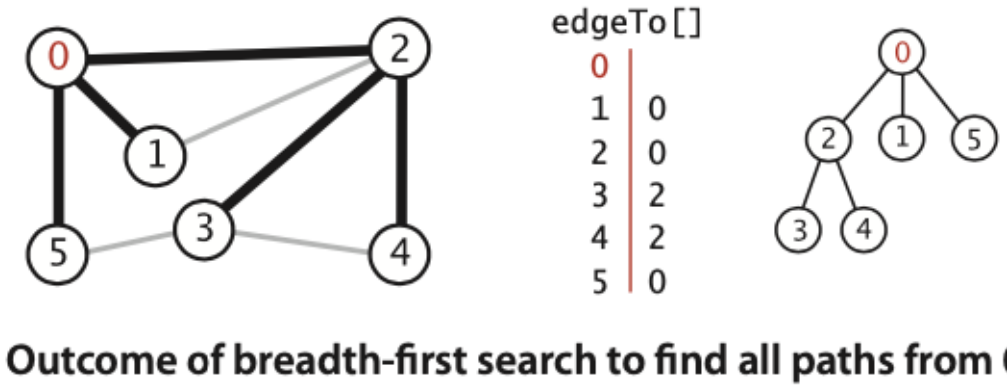
Robert Sedgewick, Kevin Wayne. Algorithms (part 2, electronic edition). Addison Wesley Professional (2014), pag 539.

Dado el siguiente grafo no dirigido, conteste: ¿Existe un path desde 0 al nodo X?, de ser así, ¿cuál es la ruta más corta?

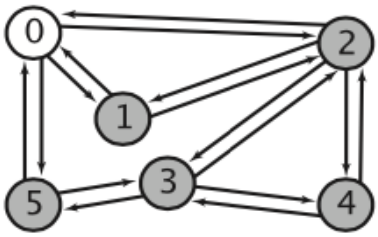
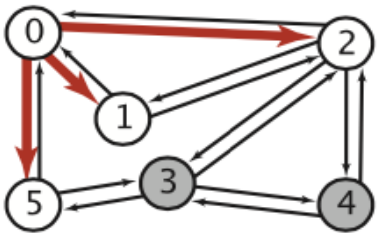
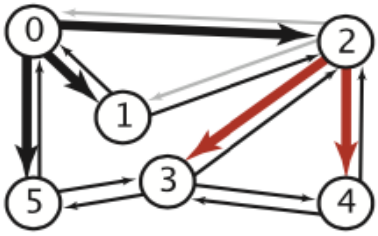
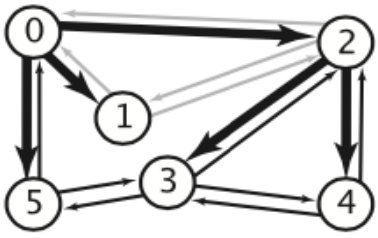
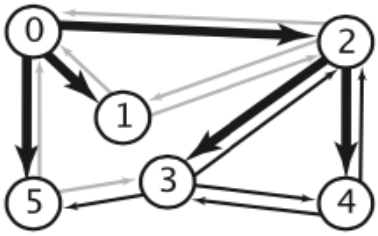
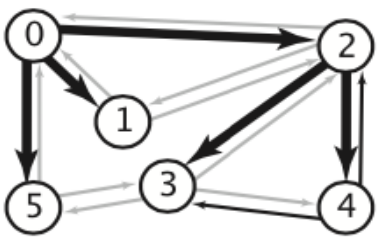


Aplicamos BFS para hallar todas las rutas desde 0

El resultado es un componente conectado y que es representado por el árbol BFS, enraizado en 0:



Outcome of breadth-first search to find all paths from 0

queue		marked[]	edgeTo[]	adj[]
0		0 T 1 2 3 4 5	0 1 2 3 4 5	0 2 1 5 1 0 2 2 0 1 3 4 3 5 4 2 4 3 2 5 3 0
2 1 5		0 T 1 T 2 T 3 4 5 T	0 1 0 2 0 3 4 5 0	0 2 1 5 1 0 2 2 0 1 3 4 3 5 4 2 4 3 2 5 3 0
1 5 3 4		0 T 1 T 2 T 3 T 4 T 5 T	0 1 0 2 0 3 2 4 2 5 0	0 2 1 5 1 0 2 2 0 1 3 4 3 5 4 2 4 3 2 5 3 0
5 3 4		0 T 1 T 2 T 3 T 4 T 5 T	0 1 0 2 0 3 2 4 2 5 0	0 2 1 5 1 0 2 2 0 1 3 4 3 5 4 2 4 3 2 5 3 0
3 4		0 T 1 T 2 T 3 T 4 T 5 T	0 1 0 2 0 3 2 4 2 5 0	0 2 1 5 1 0 2 2 0 1 3 4 3 5 4 2 4 3 2 5 3 0
4		0 T 1 T 2 T 3 T 4 T 5 T	0 1 0 2 0 3 2 4 2 5 0	0 2 1 5 1 0 2 2 0 1 3 4 3 5 4 2 4 3 2 5 3 0