Chapter 4, Graphs:

- ▶ Concepts and implementation (last week Friday)
- ▶ Traversal (**Today**)
- ▶ Minimum spanning trees (Wednesday and Friday)
- ▶ Single-source shortest paths (next week)

Today:

- ▶ Finish talking about graph implementation
- ▶ Traversal problem and intuition
- ▶ BFT and DFT similarities and differences
- ▶ Analysis

	Adjacency matrix	Adjacency list
Space	$\Theta(V^2)$	$\Theta(V + E)$
`adjacent(u, v)`	$\Theta(1)$	$\Theta(deg(u))$ (expected case)
`getAdjacents(u)`	$\Theta(V)$	$\Theta(deg(u))$
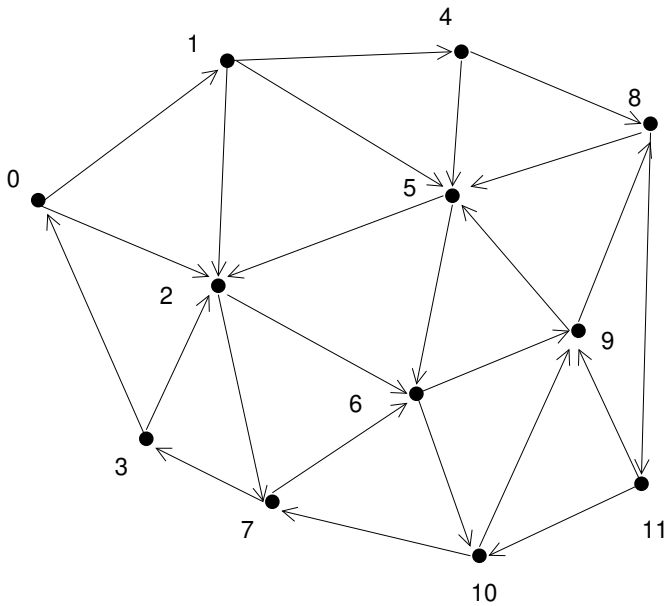
Coming up:

Do **heaps and priority queue** *project (suggested by Mon, Feb 13)*

Do **bit vector and N-set** *project (suggested by Wed, Feb 15)*

Due **Wed, Feb 15** *(class time):*
Read Section 4.(1–3)
Do Exercises 4.(26-29).
Take graph quiz

Due **Fri, Feb 17** *(end-of-day)*
Read Section 4.4
Do Exercises 4.(40, 42, 43)
Take MST quiz