

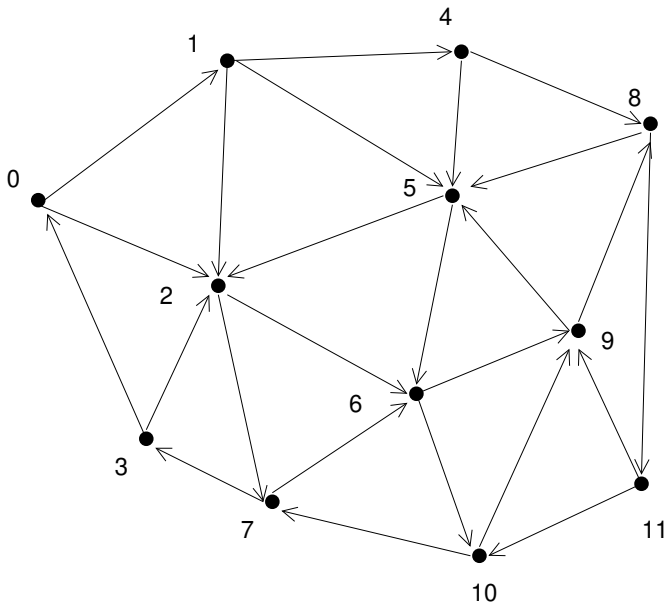
Chapter 4, Graphs:

- ▶ 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	$\Theta(V^2)$	$\Theta(V + E)$
<code>adjacent(u, v)</code>	$\Theta(1)$	$\Theta(\text{deg}(u))$ (expected case)
<code>getAdjacents(u)</code>	$\Theta(V)$	$\Theta(\text{deg}(u))$



Coming up:

*Do **heaps and priority queue** project (suggested by today, Mon, Feb 12)*

*Due **Tues, Feb 13** (end of day):*

Read Section 4.(1–3)

Do Exercises 4.(1 & 19).

Take graph quiz

*Due **Fri, Feb 16** (end-of-day)*

Read Section 4.4

Do Exercises 4.(40, 42, 43)

Take MST quiz