

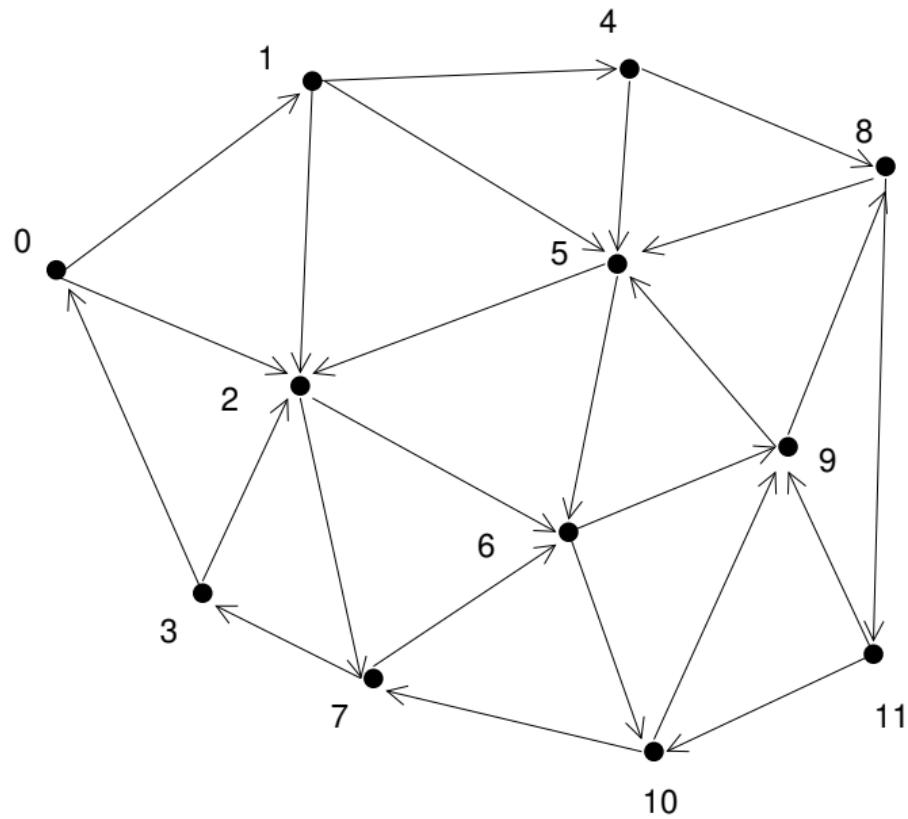
## Chapter 4, Graphs:

- ▶ Concepts and implementation (Monday)
- ▶ Traversal (**Today** and *in lab Thursday*)
- ▶ Minimum spanning trees (Friday and next week Monday)
- ▶ Single-source shortest paths (next week Wednesday and Friday)
- ▶ (Test 1, Wednesday, Oct 15 (week-after Wednesday))

## 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>	$\Theta(1)$	$\Theta(\deg(u))$ (expected case)
<code>getAdjacents(u)</code>	$\Theta(V)$	$\Theta(\deg(u))$



## Coming up:

***Do heaps and priority queue project (Fri, Oct 3)***

***Due Thurs, Oct 2:***

*Read Sections 4.(1-3) This is a big chunk—spread it out!*

*Do Exercises 4.1 and 4.19*

*Take “graph concepts, implementation, and traversal” quiz*