

**Today:** Synthesis (pairing heaps for shortest paths), catch-up, and review.

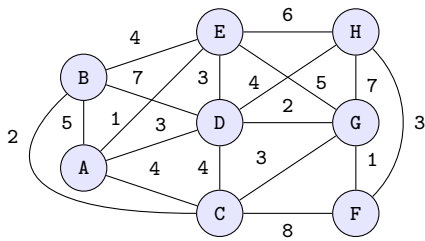
**Next class:** Midterm exam 2.

**Reminders:** Practice depicting the action of all algorithms neatly.

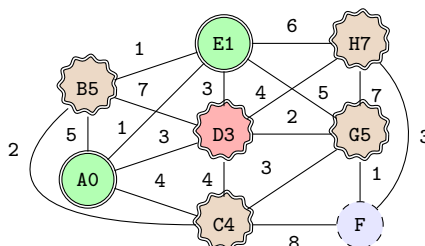
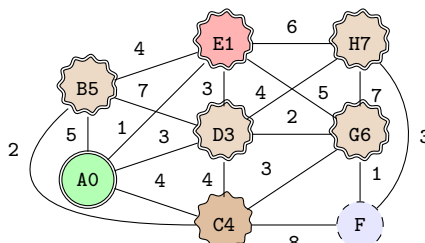
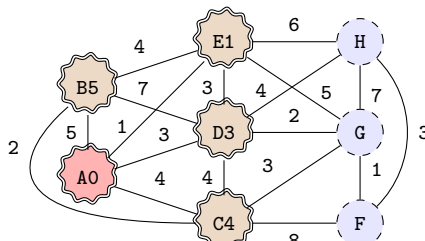
1. Write your group identifier (e.g., C3) and its members' names Underline your name.

2. Trace the action of Dijkstra's single-source shortest-path algorithm on the following graph, with source A.

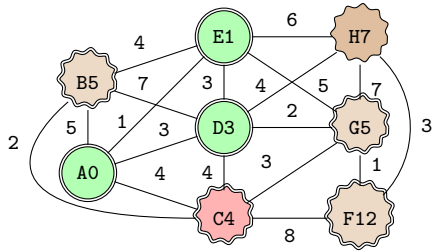
Use a *pairing heap* to maintain current distances and clearly depict the state of the heap after each change.



[Draw pairing heaps in this column]



[additional space for answering the earlier question]



[continue...]

3. ★ Is it possible to draw the above graph without any pair of edges crossing? Justify your answer.