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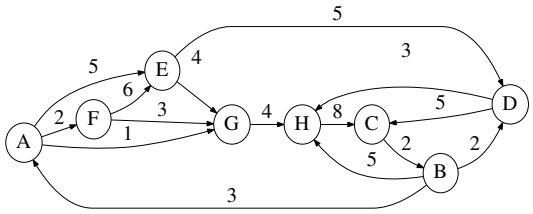
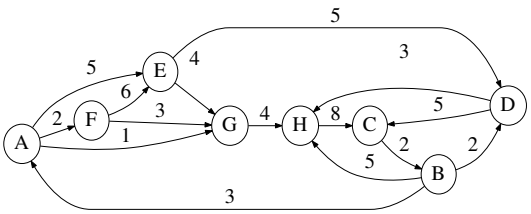
1. Write your name below.

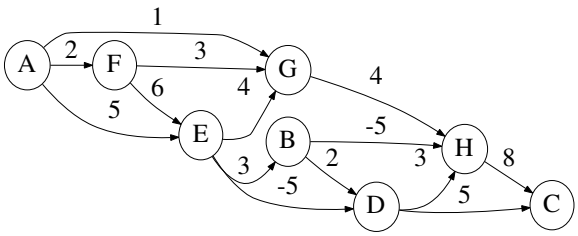
2. Trace the execution of the Bellman-Ford single-source shortest paths (SSSP) algorithm on the following directed graph, with vertex A as the source. Use the textbook's Fig. 24.4 (p. 652) as a model. Relax edges in lexicographic order. Annotate predecessor edges with check marks.



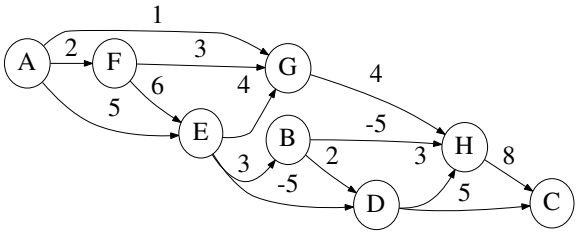
[additional space for answering the earlier question]



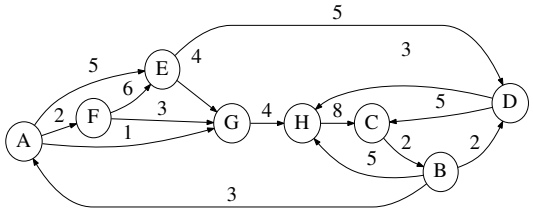
3. Trace the execution of the DAG-SHORTEST-PATHS algorithm on the following DAG, using the textbook's Fig. 24.5 (p. 656) as a model.



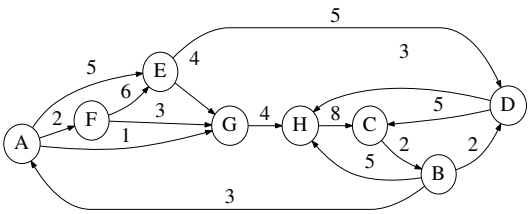
[additional space for answering the earlier question]



4. Trace the execution of Dijkstra's single-source shortest paths (SSSP) algorithm on the following graph, with source A. Use the textbook's Fig. 24.6 (p.659) as a guide. Annotate predecessor edges with check marks.



[additional space for answering the earlier question]



5. Informal homework (self-study): Augment the answer to Question 4 with the states of the primary data structures at each step (pairing heap, union-find).