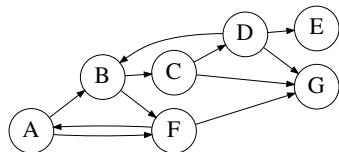


1. Work in groups of 2–4 people. List the members of your group below. Underline your name.
2. Trace the operation of $\text{DFS-VISIT}(G, A)$ from the textbook (p. 565) on the following directed graph G using the conventions of Figure 20.4 (p. 566) of the textbook, adapted as follows. In particular:
 - Depict the state of the graph after each iteration of the for loop.
 - Annotate each vertex with its color: **White**, **Gray**, **Black**. Use either the first letter of each color or use: single circle for white, double circle for gray, and box for black, as in class.
 - Record the discovery and finishing times in the format **d/f**.
 - Highlight tree edges using double lines, and annotate **Forward**, **Backward**, and **Cross** edges.



[additional space for earlier material]

3. Outline the operation of TOPOLOGICAL-SORT from the textbook (p. 573) on the graph of Question 2.
4. Depict the *strongly connected components* of the graph of Question 2.
5. (self study) Trace the operation of STRONGLY-CONNECTED-COMPONENTS from the textbook (p. 577) on the graph of Question 2.