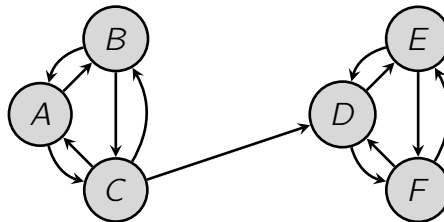Pre-lecture exercises will not be collected for credit. However, you will get more out of each lecture if you do them, and they will be referenced during lecture. We recommend **writing out** your answers to pre-lecture exercises before class. Pre-lecture exercises usually should not take you more than 30 minutes.

Consider the following graph:

1. What happens if you run DFS to explore the graph, starting from B?

2. What happens if you run DFS to explore the graph, starting from F?

3. Suppose you wanted to separate the two clusters $\{A, B, C\}$ and $\{D, E, F\}$ from each other. Based on your answer above, how might you use DFS to do this?