

1. Consider the Toivonen's algorithm, $\{A, B, C\}$ is in the negative boarder if and only if
 - a. $\{A, B, C\}$ is not frequent in the sample
 - b. $\{A, B, C\}$ is not frequent in the entire dataset
 - c. $\{A, B\}$, $\{B, C\}$, and $\{A, C\}$ are all frequent
 - d. $\{A\}$, $\{B\}$, and $\{C\}$ are frequent

2. In AGM and BigCLAM (circle all that apply):
 - a. BigCLAM: In the factor matrix, each of the matrix components indicates the pull from a community to a node and it ranges from -1 (strong negative pull) to 1 (strong positive pull)
 - b. BigCLAM: We assume the pull strengths from a community to individual nodes are independent
 - c. AGM: We can estimate the community detection results by using one of the eigenvectors of the adjacency matrix
 - d. AGM: When calculating the overall edge probability between two nodes u and v , we use this equation: $P(u, v) = 1 - \prod_{c \in M_u \cup M_v} (1 - P_c)$ (where M_u ... is the set of communities node u belongs to)