

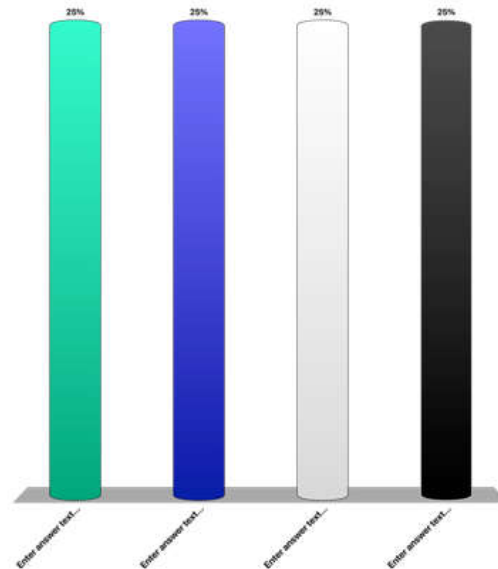
Which of the following techniques do you believe would be most appropriate to identify communities on a social graph?

A. Cliques

B. Random Walks

C. Shortest Paths

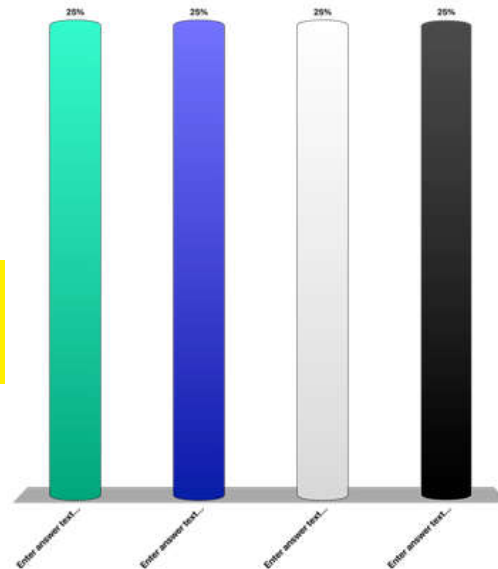
D. Association rules



* clique = subset of vertices of an undirected graph such that every two distinct vertices in the clique are adjacent; that is, its induced subgraph is complete.

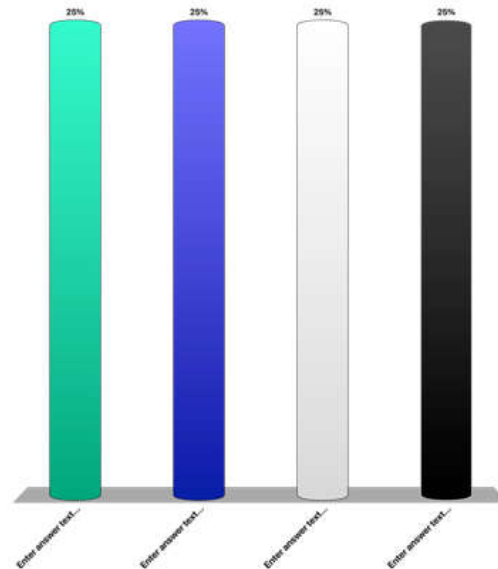
Modularity clustering will end up always with a single community at the top level?

- A. true
- B. Only for dense graphs
- C. Only for connected graphs
- D. never



Modularity clustering will end up always with the same community structure?

- A. true
- B. Only for connected graphs
- C. Only for cliques
- D. false**



- the order of the processing of the nodes might result in different communities
- there might be ties, so a node can choose to be in any of the multiple possible communities
- for cliques it will always produce the same result, maybe for some other structures as well, but in general it is not a stable clustering technique

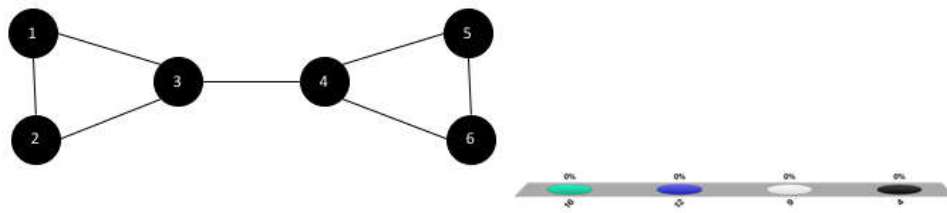
Betweenness of edge 3-4 is ...

A. 16

B. 12

C. 9

D. 4



When computing path counts for node 1 with BFS, the count at 6 is ...

A. 1

B. 2

C. 3

D. 4

