

Graph 1

BFS

1. Frontier Queue = A
Discovered = A
Visiting = A
2. Frontier Queue = D, G, E
Discovered = A, D, G, E
Visiting = A
3. Frontier Queue = G, E
Discovered = A, D, G, E
Visiting = D
4. Frontier Queue = E, F
Discovered = A, D, G, E, F
Visiting = G
5. Frontier Queue = F, B, C
Discovered = A, D, G, E, F, B, C
Visiting = E
6. Frontier Queue = B, C, H
Discovered = A, D, G, E, F, B, C, H
Visiting = F
7. Frontier Queue = C, H, I
Discovered = A, D, G, E, F, B, C, H, I
Visiting = B
8. Frontier Queue = H, I
Discovered = A, D, G, E, F, B, C, H, I
Visiting = C
9. Frontier Queue = I
Discovered = A, D, G, E, F, B, C, H, I
Visiting = H
10. Frontier Queue = J
Discovered = A, D, G, E, F, B, C, H, I, J
Visiting = I
11. Frontier Queue = (Empty)
Discovered = A, D, G, E, F, B, C, H, I, J
Visiting = J
12. Frontier Queue = (Empty)
Discovered = A, D, G, E, F, B, C, H, I, J
Visiting = (Done)

DFS

1. Visiting = A
Discovered = A
2. Visiting = E
Discovered = A, E
3. Visiting = B
Discovered = A, E, B
4. Visiting = I
Discovered = A, E, B, I
5. Visiting = J
Discovered = A, E, B, I, J
Reached a last vertex
Backtracking
 - I (No Adjacent)
 - B (No Adjacent)
 - E (Has Adjacent)
6. Visiting = C
Discovered = A, E, B, I, J, C
Reached Last vertex
Backtracking
 - E (No Adjacent)
 - A (Back to start changing to new path)
7. Visiting = G
Discovered = A, E, B, I, J, C, G
8. Visiting = F
Discovered = A, E, B, I, J, C, G, F
9. Visiting = H
Discovered = A, E, B, I, J, C, G, F, H
Reached Last vertex
Backtracking
 - F (No Adjacent)
 - G (No Adjacent)
 - A (Back to Start changing to new path)
10. Visiting = D
Discovered = A, E, B, I, J, C, G, F, H, D

Graph 2