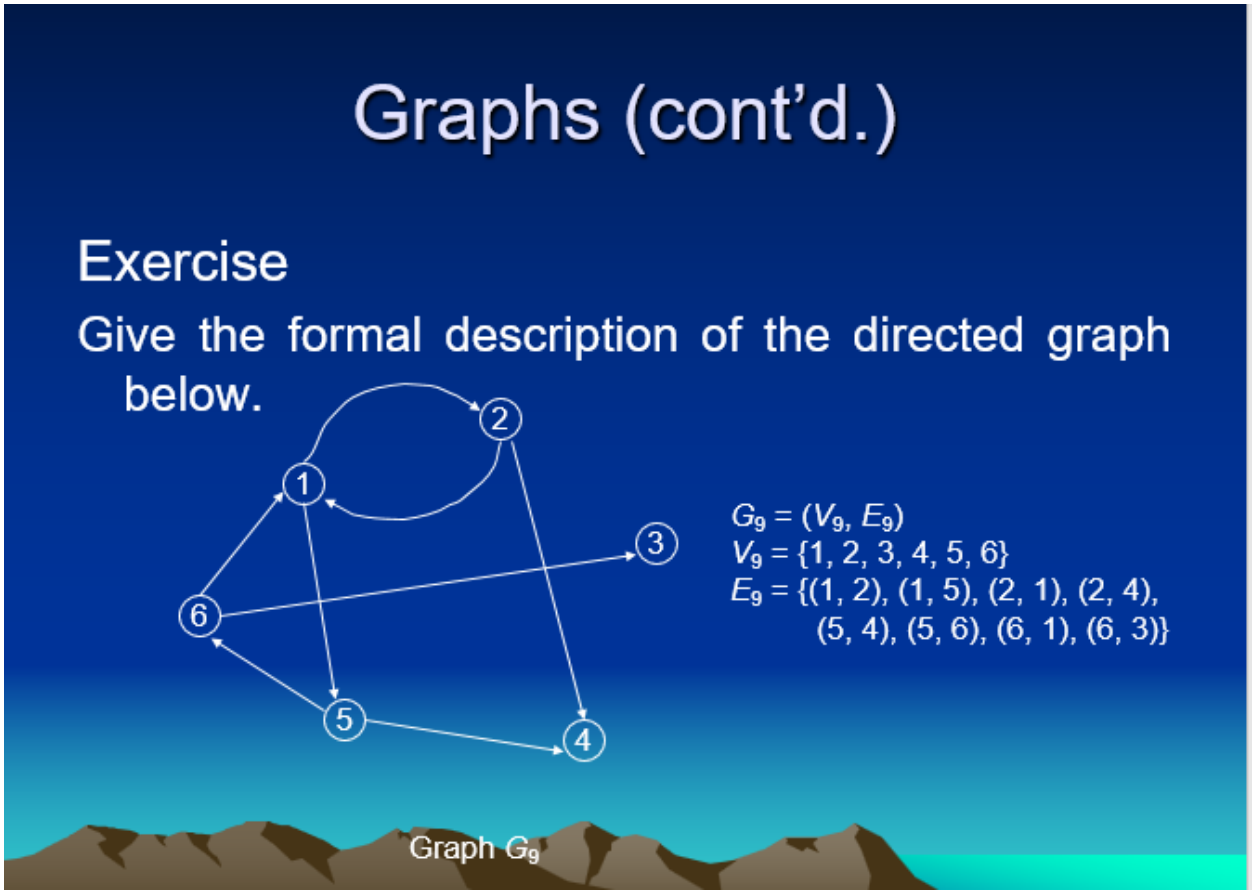


PATHS

Paths with length of 2:V ={ 1,2,4}
{1,5,4},{1,5,6},{2,1,5},{6,1,2},{5,6,3},{5,6,1},{6,1,2},{1,2,1},{2,1,2}
Paths with length of 3: V={2,1,5,4},
{6,1,2,4},{1,5,6,3},{2,1,5,6},{6,1,5,4},{5,6,1,2},{1,5,6,1},{5,6,1,5},{6,1,5,6}
Paths with length of 4: V={5,6,1,2,4},{2,1,5,6,3},{6,1,2,4,5}

SIMPLE PATHS

Simple paths with length of 2: V={1,2,4},{1,5,4},{6,1,2},{1,5,6},{2,1,5},{5,6,3},{5,6,1},{2,1,5}
Simple paths with length of 3: V={2,1,5,6],{6,1,5,4},{6,1,2,4],{5,6,1,2},{1,5,6,3},{2,1,5,4}
Simple paths with length of 4: V={6,1,2,4,5},{5,6,1,2,4},{2,1,5,6,3}

SIMPLE CYCLE

Simple cycle with length of 2: V= {1,2,1},{2,1,2}
Simple cycle with length of 3: V= {1,5,6,1},{5,6,1,5},{6,1,5,6}

INDEGREE

Indegree of node 1: V = { 2,6 }
node 2: V = { 1 }
node 3: V = { 6 }
node 4: V = { 2,5 }
node 5: V = { 1 }
node 6: V = { 5 }

OUTDEGREE

Outdegree of node 1: V = { 2,5 }
node 2: V = { 1,4 }
node 3: V = { none }
node 4: V = { none }
node 5: V = { 4,6 }
node 6: V = { 1,3 }

ADJACENT TO

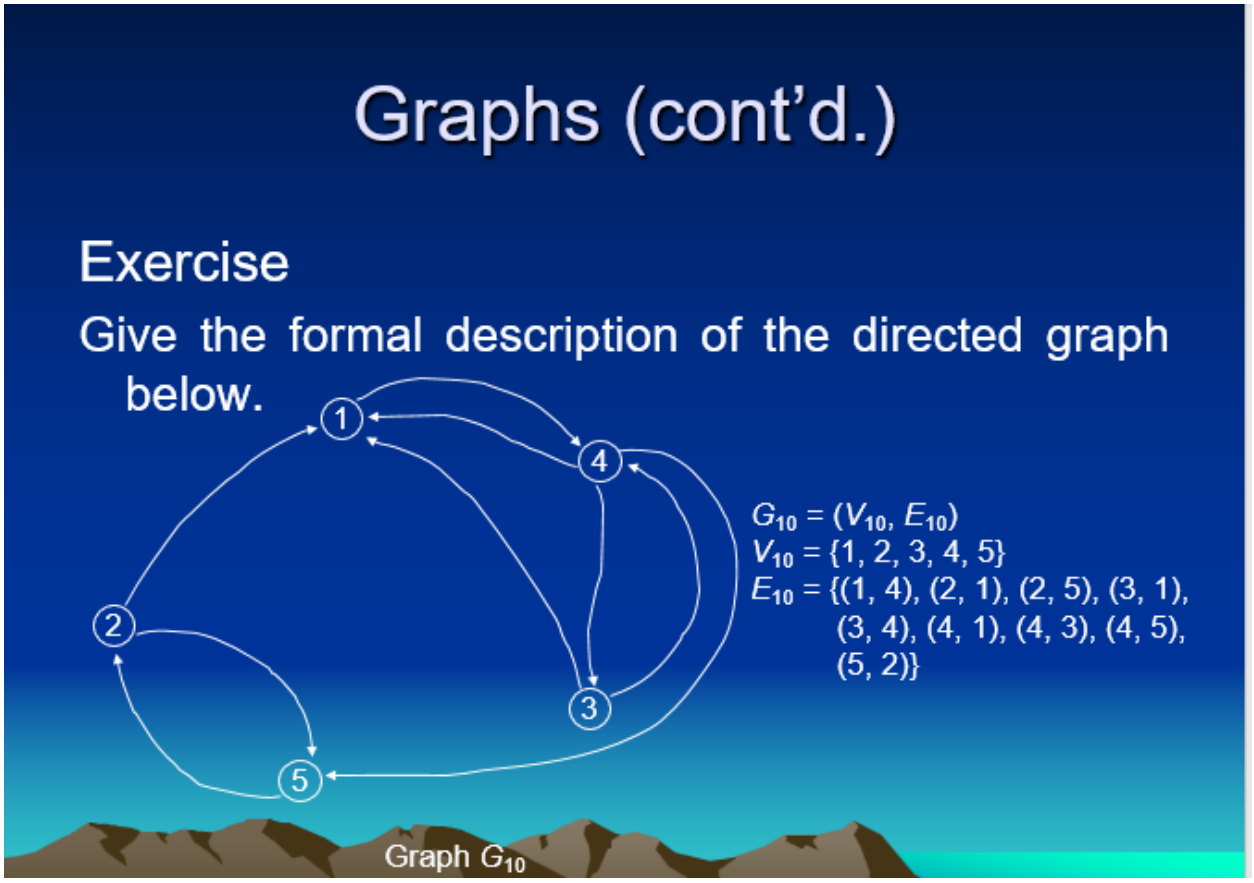
Adjacent to node 1: V = { 2,6 }
node 2: V = { 1 }
node 3: V = { 6 }
node 4: V = { 2,5 }
node 5: V = { 1 }
node 6: V = { 5 }

ADJACENT FROM

Adjacent from node 1: V = { 2,5 }
node 2: V = { 1,4 }
node 3: V = { none }
node 4: V = { none }
node 5: V = { 4,6 }
node 6: V = { 1,3 }

EDGES OF INCIDENT

Edges of incident to node 1: E={1,2},{2,1},{1,5},{6,1}
node 2: E={1,2},{2,1},{2,4}
node 3: E={6,3}
node 4: E={2,4},{5,4}
node 5: E={1,5},{5,6},{5,4}
node 6: E={5,6},{6,1},{6,3}



PATHS

Paths with length of 2:V
={2,1,4},{4,5,2},{1,4,5},{3,4,5},{5,2,1},{3,1,4},{3,4,1},{1,4,3},{2,5,2},{5,2,5},{3,4,3},{4,3,4}
Paths with length of 3:
V={2,1,4,3},{5,2,1,4},{4,5,2,1},{2,1,4,5},{3,1,4,5},{3,4,5,2},{1,4,3,1},{4,3,1,4},{3,1,4,3},{1,4,5,2}
Paths with length of 4: V={3,4,5,2,1},{5,2,1,4,5},{5,2,1,4,3}
,{3,1,4,5,2},{2,1,4,5,2},{4,5,2,1,4},{1,4,5,2,1}

SIMPLE PATHS

Simple paths with length of 2:
V={3,4,5},{2,1,4},{4,5,2},{3,1,4},{3,4,1},{4,5,2},{4,3,1},{1,4,5},{5,2,1}
Simple paths with length of 3: V=
{3,1,4,5},{5,2,1,4},{1,4,5,2},{4,5,2,1},{3,4,5,2},{2,1,4,5},{2,1,4,3}
Simple paths with length of 4: V= {3,4,5,2,1},{3,1,4,5,2},{5,2,1,4,3}

SIMPLE CYCLE

Simple cycle with length of 2: V= {2,5,2},{5,2,5},{4,1,4},{1,4,1},{3,4,3},{4,3,4}
Simple cycle with length of 3: V= {3,1,4,3},{1,4,3,1},{4,3,1,4}
Simple cycle with length of 4: V= {2,1,4,5,2},{5,2,1,4,5},{1,4,5,2,1},{4,5,2,1,4}

INDEGREE

Indegree of node 1: V = { 2,3,4 }
node 2: V = { 5 }
node 3: V = { 4 }
node 4: V = { 1,3 }
node 5: V = { 2,4 }

OUTDEGREE

Outdegree of node 1: V = { 4 }
node 2: V = { 1,5 }
node 3: V = { 1,4 }
node 4: V = { 1,3,5 }
node 5: V = { 2 }

ADJACENT TO

Adjacent to node 1: V = { 2,3,4 }
node 2: V = { 5 }
node 3: V = { 4 }
node 4: V = { 1,3 }
node 5: V = { 1,3 }

ADJACENT FROM

Adjacent from node 1: V = { 4 }
node 2: V = { 1,5 }
node 3: V = { 1,,4 }
node 4: V = { 1,3,5 }
node 5: V = { 2 }

EDGES OF INCIDENT

Edges of Incident to node 1: V= {1,4},{4,1},{3,1},{2,1}
node 2: V= {2,5},{5,2},{2,1}
node 3: V= {3,1},{4,3},{3,4}
node 4: V= {4,5},{4,3},{4,1},{1,4},{3,4}
node 5: V= {2,5},{4,5},{5,2}