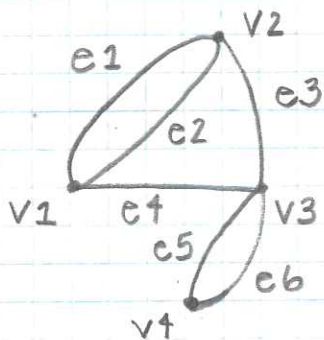


5.7.15

Graph Theory Terms



Walk: Sequence of vertices and edges that begin and end at a vertex.

length = 3 e's → Ex: $v_1, e_1, v_2, e_3, v_3, e_5, v_4$

start and end in different places are "open walk."

$v_1, e_1, v_2, e_3, v_3, e_4, v_1$

start & end = same spot: "closed walk."

- 4 vertices
- 6 edges
- Not a simple graph

Path: Walk with no repeated edges.

Length: Number of edges in a walk, path, etc.

Distance: Length of the shortest path between two vertices.

Ex: What is the distance between v_1 and v_4 ? 2 e's

Diameter: Maximum distance between any two vertices. 2 e's
"GCF"