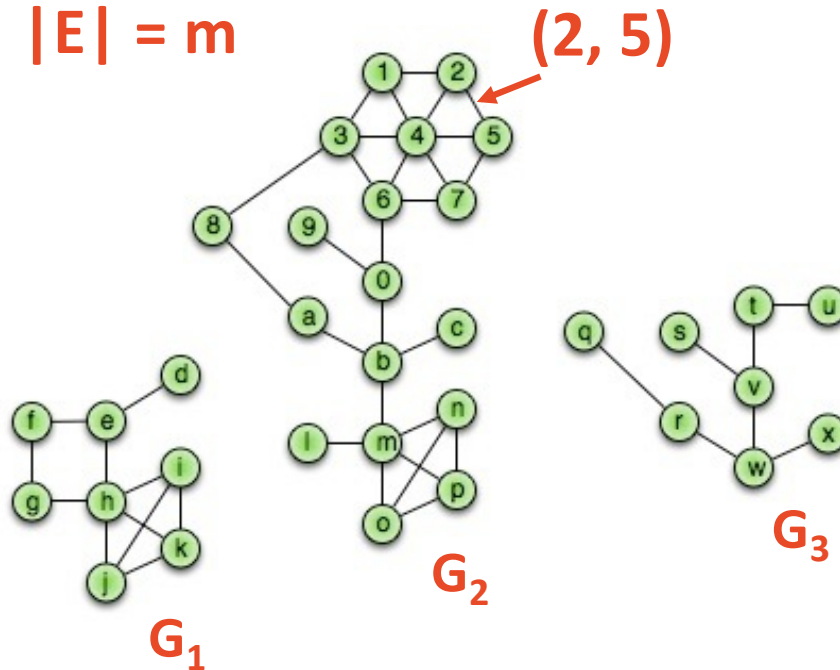


# Graph Vocabulary

$$G = (V, E)$$

$$|V| = n$$

$$|E| = m$$



Incident Edges:

$$I(v) = \{ (x, v) \text{ in } E \}$$

Degree(v):  $|I(v)|$

Adjacent Vertices:

$$A(v) = \{ x : (x, v) \text{ in } E \}$$

Path( $G_2$ ): Sequence of vertices connected by edges

Cycle( $G_1$ ): Path with a common begin and end vertex.

Simple Graph( $G$ ): A graph with no self loops or multi-edges.