# Graph representations
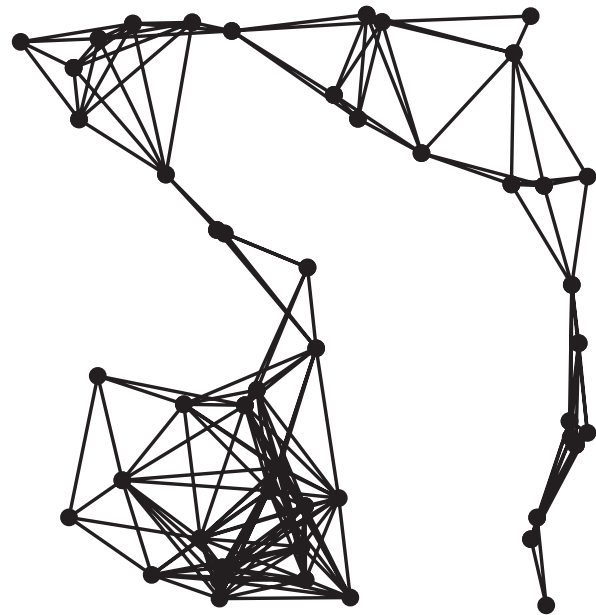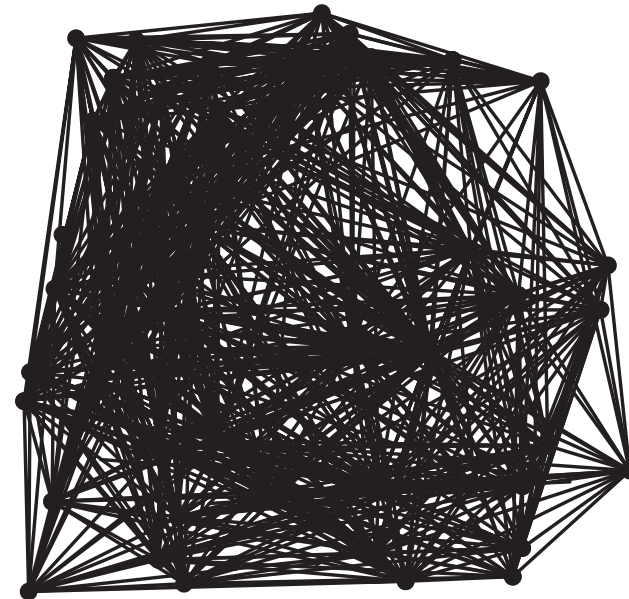
In practice. Use adjacency-lists representation.

- Algorithms based on iterating over vertices adjacent to $v$.
- Real-world graphs tend to be sparse.

huge number of vertices,
small average vertex degree

sparse (E = 200)     dense (E = 1000)

Two graphs (V = 50)