Portland　　　　　**Seattle**　　　　　　　　**Boston**

SF　　　　**Denver**　　　　　**Chicago**

　　　　　　　　　　　　　　　　Philadelphia

LA　　　　　　　**Dallas**　　**Atlanta**　　　　**NY**

Walk: an alternating sequence of vertices and edges

　　ex: Portland, SF, LA, Dallas, Denver, SF, Portland, Seattle

Path: a walk with no repeated edges

　　ex: Portland, SF, LA, Dallas, Denver, SF

Simple path: a path with no repeated vertices

　　ex: Portland, SF, LA, Dallas, Denver

Closed Walk: a walk that starts and ends on the same vertex

　　ex: Portland, SF, LA, Dallas, Denver, SF, Portland

Circuit: a path that starts and ends on the same vertex

　　ex: Portland, SF, Denver, Chicago, Atlanta, Dallas, Denver, Seattle, Portland

Cycle: a simple path that starts and ends on the same vertex

　　ex: Denver, Dallas, Atlanta, Chicago, Denver

Degree: the number of edges incident to a vertex (loops counted twice)

　　Max Degree Vertex: Denver $\Rightarrow$ deg(Denver) = 4

　　Min Degree Vertex: Philadelphia $\rightarrow$ deg(Philadelphia) = 1