

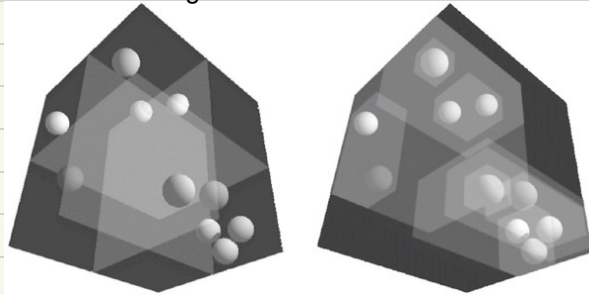
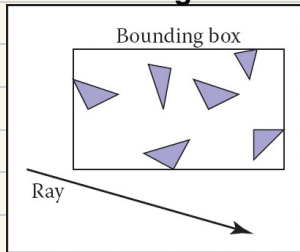
# Chapter 12 - Data Structures

## 3. Spatial Data Structures

object partitioning scheme - group objects into hierarchy

space partitioning scheme - space divided into regions

### 3.1. Bounding Boxes



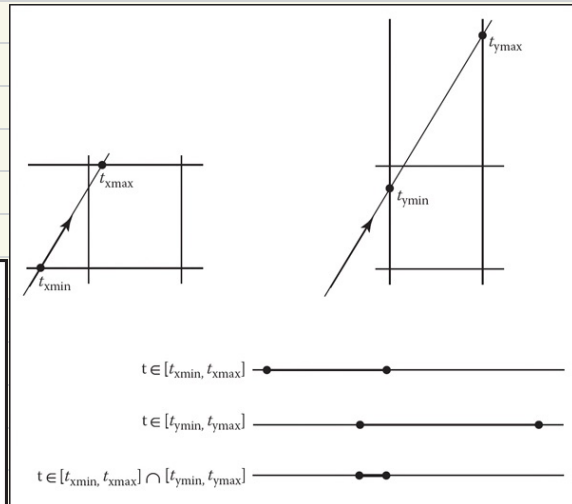
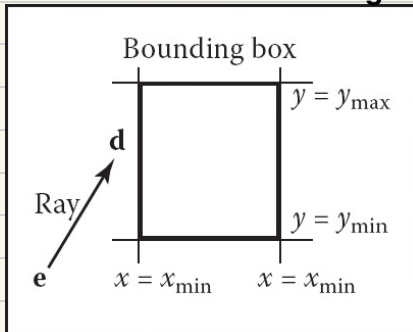
$$txmin = (xmin - xe) / xd$$

$$txmax = (xmax - xe) / xd$$

$$tymin = (ymin - ye) / yd$$

$$tymax = (ymax - ye) / yd$$

### 3.2. Hierarchical Bounding



### 3.3. Uniform Spatial Subdivision

