* **Cardinality of a Set:**
* The cardinality of a set is the number of elements in a set Written as **|A|**.
* Examples:
* Let **R** = {1, 2, 3, 4, 5}. Then **|R|** = 5.
* |∅| = 0.
* Let S = {∅, {a}, {b}, {a, b}}. Then |S| = 4.
* This is the same notation used for vector length in geometry.
* A set with one element is sometimes called a **Singleton Set**.
* **|*S*|** (read the ***cardinality* of *S*** ) is a measure of how many different elements ***S*** has.
* *E.g.*,
* |∅|= 0.
* |{1, 2, 3}| = 3.
* |{a, b}| = 2.
* We say ***S*** is ***infinite*** if it is not ***finite***.