Set & Map

```
interface Set<E>

    boolean   add(E obj)
    boolean   contains(Object obj)
    boolean   remove(Object obj)
        int   size()
Iterator<E>   iterator()
```

```
interface Iterator<E>

       boolean  hasNext()
             E  next()
          void  remove()
```

```
class HashSet implements Set
```

(aka hash table) implemented with a hash function

```
class TreeSet<E> implements Set
```

usually implemented with a binary search tree of `TreeNode`'s
E needs to be Comparable

```
interface Map<K, V>

          V   put(K key, V value)
          V   get(Object key)
          V   remove(Object key)
    boolean   containsKey(Object key)
        int   size()
     Set<K>   keySet()
```

```
class HashMap<K, V> implements Map<K, V>
```

(aka lookup table) implemented with a hash function

```
class TreeMap<K, V> implements Map<K, V>
```

usually implemented with a binary search tree of `TreeNode`'s
K needs to be Comparable