

Maps

- ▶ association between *keys* and *values*
- ▶ Interface Map
- ▶ Implementations HashMap TreeMap
- ▶ Library java.util.Map

```
Map<String, Color> favColors = new HashMap<String,
    favColors.put("Annie", new Color("red"));
    favColors.remove("Annie");
    Color temp = favColors.get("Annie");
    // returns {\tt null} if not there
    for (String name: favColors.keySet()) {
        .....
    }
```

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Static Initialization

- ▶ Only done once, before the constructor is executed.

```
public class BankAccount
{
    private static int myNum;

    static
    {
        myNum = 1000;
    }
}
```

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Sets

- ▶ Interface Set
- ▶ Implementations HashSet TreeSet
- ▶ Library java.util.Set

```
Set<String> names = new HashSet<String>();
    names.add("Annie");
    names.remove("Bill");

    for (String name: names) {
        .....
    }
```

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Mathematical Methods

- ▶ Math is part of the Standard Library

```
Math.sqrt(x) //Computes Square root of x
Math.pow(x,y) //Computes x^y
Math.sin(x) //Sine of x
Math.cos(x) //Cos of x
Math.min(x,y) // computes the minimum

x1 = (-b + Math.sqrt(b * b - 4)) / (2 * a)
```

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