

# Abstract Data Types: Sets

A3

The Set ADT  
A Set Interface

## The Set ADT

The **set** ADT corresponds to a mathematical *set*. A set has these fundamental properties:

- duplicates *are not* allowed
- order is *not* preserved

A set may support operations such as these:

- *create*: construct an empty set
- *add*: add an element to the set
- *contains*: does the set contain a given element

## Our Set Interface

We will explore sets using an interface with the following methods:

```
public void add(T value);  
public boolean contains(T value);  
public void remove(T value);  
public int size();  
public String toString();
```