Game

CardGame
- newDecks

Deck
- shuffle
- draw

Card
- shuffleCard

Wheel
- spin

Dice
- roll
- diceRoll

WheelGame

DiceGame
Diagram of class hierarchy:

- GameObject
  - RandomGameObject
    - getNext(): RandomResult
  - Wheel
  - CardGame
    - #Deck
      - getDeck(): Card[]
  - Die

Legend:
- Object names are capitalized.
- Methods are in lowercase.
- Inheritance is indicated by arrows.
? extends Foo vs. ? super Foo

Abstraction by Parameterization
substituting a parameter for data values
to get generality

Original name for Generics is Parameterized Types

Collection of Objects \leftrightarrow \text{Polymorphic}
Collection\langle T \rangle \leftrightarrow \text{restricted polymorphism}
add(T value)
? extends Foo vs. ? super Foo

```java
class MyCollection<T extends Foo> {
    ...
    x.doFoo();
}
```

```java
? a = new MyCollection<Foo>()
? b = new MyCollection<Bar>()
```
class MyCollection<E> {
    MyCollection(Comparator<? super E> comp)
}

class MyClassType {
    // Type parameter
    Comparator<T>
}

new MyCollection<C>(comp)

// Actual class

A

B

C

D

Vote
Yes 3/5
No 2/5