

# LESSON 37B NOTES

## The Java Wrapper Classes

### Constructor Summary

**Integer**(int value)

Constructs a newly allocated `Integer` object that represents the specified `int` value.

**Double**(double value)

Constructs a newly allocated `Double` object that represents the primitive `double` argument.

### Method Summary

int	<b>intValue</b> () Returns the <code>int</code> value of this <code>Integer</code> object.
double	<b>doubleValue</b> () Returns the <code>double</code> value of this <code>Double</code> object.
int	<b>compareTo</b> ( <code>Integer</code> anotherInteger) Compares two <code>Integer</code> objects numerically.
int	<b>compareTo</b> ( <code>Double</code> anotherDouble) Compares two <code>Double</code> objects numerically.
boolean	<b>equals</b> ( <code>Object</code> obj) Compares this object against the specified wrapper class object.

### Other Wrapper Classes (with methods for unwrapping)

<b>Basic Type</b>	<b>Wrapper Class</b>	<b>Method For Unwrapping</b>
boolean	Boolean	boolean booleanValue()
char	Character	char charValue()
byte	Byte	byte byteValue()
short	Short	short shortValue()
long	Long	long longValue()
float	Float	float floatValue()

## **Primitive Data and ArrayLists**

### **Adding Primitive Data to an ArrayList (EXAMPLE):**

```
List list2 = new ArrayList();  
list2.add(0, new Integer(50));  
list2.add(1, new Integer(75));
```

### **Retrieving Primitive Data from an ArrayList (EXAMPLE):**

```
((Integer) list.get(x)).intValue();
```

### **MUST CAST TO DESIRED WRAPPER CLASS FIRST!!**

### **Limiting the types of objects stored in an ArrayList (Generics):**

```
List<ObjectType> list2 = new ArrayList<ObjectType>();
```

- ***(PRO) Eliminates need for casting when extracting elements from an ArrayList***
- ***(CON) Removes the flexibility of an ArrayList***