20. Inheritance :: Revised *Rectangle* Class Implementation

```
//**********************************************************************
// CLASS: Rectangle (Rectangle.java)
//**********************************************************************

/**
 * Represents a Rectangle that can be drawn on a graphical window.
 */
public class Rectangle extends Shape {
    private int mHeight;
    private int mWidth;

    /**
     * Default ctor. Initializes all instance variables to 0 by calling the second
     * ctor.
     */
    public Rectangle() {
        this(0, 0, 0, 0);
    }
```

20. Inheritance :: Revised *Rectangle* Class Implementation (continued)

```java
/**
 * Second ctor.
 */
public Rectangle(int pX, int pY, int pWidth, int pHeight) {
    super(pX, pY);
    setWidth(pWidth);
    setHeight(pHeight);
}

/**
 * Accessor method for the mHeight data member.
 */
public int getHeight() {
    return mHeight;
}

/**
 * Accessor method for the mWidth data member.
 */
public int getWidth() {
    return mWidth;
}
```

20. Inheritance :: Revised *Rectangle* Class Implementation (continued)

```
/**
 * Change the size of this Rectangle.
 */
public void resize(int pNewWidth, int pNewHeight) {
    setWidth(pNewWidth);
    setHeight(pNewHeight);
}

/**
 * Mutator method for the mHeight data member.
 */
public void setHeight(int pNewHeight) {
    mHeight = pNewHeight;
}

/**
 * Mutator method for the mWidth data member.
 */
public void setWidth(int pNewWidth) {
    mWidth = pNewWidth;
}
}
```