

16. Inheritance :: Revised *Square* Class Implementation

```
//*****  
// CLASS: Square (Square.java)  
//*****  
  
/**  
 * Represents a Square that can be drawn on a graphical window. Square is a subclass  
 * of Rectangle and inherits all of the instance variables of Rectangle: mX, mY,  
 * mWidth, and mHeight. Square may also call any public or protected method in  
 * Rectangle.  
 */  
  
public class Square extends Rectangle {  
    /**  
     * Default ctor. Initializes all instance variables to 0 by calling the second  
     * ctor.  
     */  
    public Square() {  
        this(0, 0, 0);  
    }  
}
```

16. Inheritance :: Revised *Square* Class Implementation (continued)

```
/**
 * Second ctor.
 */
public Square(int pX, int pY, int pSideLen) {
    super(pX, pY);          // Call Rectangle(int, int)
    setSideLen(pSideLen);
}

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

/**
 * Change the size of this Square.
 */
public void resize(int pNewSideLen) {
    super.resize(pNewSideLen, pNewSideLen);
}
```

16. Inheritance :: Revised *Square* Class Implementation (continued)

```
/**
 * Mutator method for the mSideLen data member.
 */
public void setSideLen(int pNewSideLen) {
    setWidth(pNewSideLen);
    setHeight(pNewSideLen);
}
}
```