## LeadedPencil.java

$/ * *$

* A LeadedPencil has a default length: When the constructor is called with a
* non-positive length, the LeadedPencil is initialized to have the default
* length.
* 
* @convention length > 0
* @correspondence $s=$ length <br /> c = color
*/
public class LeadedPencil implements Pencil \{

```
/**
    * Default value used to initialize length if constructor is not called with
    * a positive value.
    */
private static final int DEFAULT_LENGTH = 10;
    /**
    * Color of the lead in this pencil. The lead can always be replaced with
    * different color.
    */
private Colors color;
/**
    * The length of the pencil. This length is always positive.
    */
private int length;
/**
    * Initializes the LeadedPencil with the given length, unless the length is
    * not positive, in which case the default length is used.
    *
    * @param color
    * the initial lead color
    * @param length
    * the initial length of the pencil
    */
    public LeadedPencil(Colors color, int length) {
                        this.color = color;
                        this.length = DEFAULT_LENGTH;
                        if (length > 0) {
                                this.length = length;
            }
    }
/**
    * Returns a human-readable representation of the Pencil.
    */
public String toString() {
            return (this.length + ": " + this.color);
    }
/**
    * @param newColor
    * is a valid color
    */
public void setColor(Colors newColor) {
            this.color = newColor;
    }
/**
    * @param remove
    * amount by which pencil will be shortened
    */
public void sharpen(int remove) {
```

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```
assert (remove >= 0);
if (remove < this.length) {
        this.length -= remove;
    }
```

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