

## No New Requirements for this Block of Code

```
if (i == 3) {
    for (j = 0; a > j; j++) {
        printf(".");
    }
}
```

No new requirements here,  
since we already need  
a non-zero value of **a**.

## Summary of Tests Needed to Cover All Code

1. Regions that do not fit in **width**.
2. Regions that do fit in **width**.
3. A non-zero region smaller than extra space.
4. A region as least as large as non-zero extra space.
5. A region larger than extra space.
6. More than one non-zero region.

Notice that covering the code does not even require a zero region (so it's not really enough).

## Use Corner Cases When Possible

Try to **use corner cases**. For example,

- for #1 (regions that do not fit in **width**),
- let's make the regions 1 too large.
- Say 1, 2, 3, and 4, which needs width 13,
- so we'll set **width** to 12.

**Test #1: 1 2 3 4 12, which should fail.**

## Try to Minimize Human Work, Too

For requirement #2 (regions that fit),

- a corner case (an exact fit),
- means no empty space, precluding requirements #3 and #4,
- so let's try to reduce tests instead.

**Let's choose extra space as 2.**