Figure 12.0 The median example, completed.

Let's complete our median-finding example. Here are the steps:

- read in **N**, the size of the list
- declare and instantiate **list**, an array of **N** integers

  ____
- read in the elements of **list**
- check each element of **list** to see if it's the median

The last step will go something like this:

```
for (int i = 0; i < N; i++)
    if ( ♡ ____________________ ♡ ) {
        System.out.println("The median is: " + list[i]);
        __________
    }
```

By our definition, **list[i]** is the median element of the list if it's bigger than half the list elements, and by "half the list elements" we mean **N**/2, because integer division truncates in Java.

So let's write a method to count the elements of an array **list** that are smaller than some given value, **refVal**:

```
private static ____ countSmaller ( ____ refVal, ____ list) {
    int count = 0;
    for (int i = 0; ______________ ; i++ )
        if (list[i] < refVal)
            count ++;
    return count;
}
```

Now the test above marked with ♡'s becomes:

♡ ____________________ ♡

Exercise: We've given you all of the components required to complete the median-finding example. So complete it, and test it! To read input, you'll need to instantiate a **BufferedReader** object **keyb** as described in Figure 5.1.