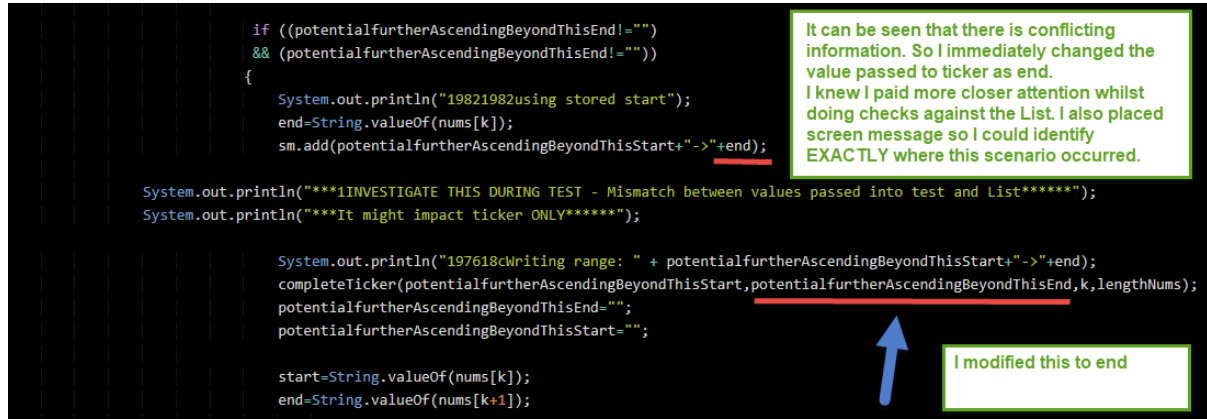Whilst I was tidying up my code, I found a discrepancy between the actual value placed in the List and that passed into the ticker.
I suspected it would render incorrect output on the ticker.

This seems to be an example:


```
            if ((potentialfurtherAscendingBeyondThisEnd!="")
            && (potentialfurtherAscendingBeyondThisEnd!=""))
            {
                System.out.println("19821982using stored start");
                end=String.valueOf(nums[k]);
                sm.add(potentialfurtherAscendingBeyondThisStart+"->"+end);

        System.out.println("***1INVESTIGATE THIS DURING TEST - Mismatch between values passed into test and List******");
        System.out.println("***It might impact ticker ONLY******");

                System.out.println("197618cWriting range: " + potentialfurtherAscendingBeyondThisStart+"->"+end);
                completeTicker(potentialfurtherAscendingBeyondThisStart,potentialfurtherAscendingBeyondThisEnd,k,lengthNums);
                potentialfurtherAscendingBeyondThisEnd="";
                potentialfurtherAscendingBeyondThisStart="";

                start=String.valueOf(nums[k]);
                end=String.valueOf(nums[k+1]);
```

It can be seen that there is conflicting information. So I immediately changed the value passed to ticker as end.
I knew I paid more closer attention whilst doing checks against the List. I also placed screen message so I could identify EXACTLY where this scenario occurred.

I modified this to end

Here are analysis on test cases. I had to create few others to explore exactly root cause of inaccuracies in the ticker.

```
//can see issues with  A which is preceded with A-D sequence
 60.1f, 60.2f, 60.3f,60.2f, 60.1f, 60.0f, 59.9f, 71.3f, 71.4f, 71.5f, 71.6f, 71.7f, 71.6f,71.5f, 71.4f, 71.3f
```

```
TICKER: A(3)-D(5)A(4)-D(5)
[60.1->60.3, 60.3-> 59.9, 71.3->71.7, 71.7->71.3]
```

ISSUE HERE

A-D(A)

```
//No issues with Descending following a previous D-A sequence
 60.5f, 60.4f, 60.3f,60.4f, 60.5f, 60.6f, 60.7f, 72.1f, 72.0f, 71.9f, 71.8f, 71.7f, 71.8f,71.9f, 80.0f, 80.1f
```

```
TICKER: D(3)-A(5)D(5)-A(3)A(2)
[60.5->60.3, 60.3->60.7, 72.1->71.7, 71.7->71.9, 80.0->80.1]
```

NO ISSUES HERE EVEN
THOUGH THERE IS TRANSITION
ELEMENT BEFORE...
We can see sequence is D-A(D)

```
//issues if sequence is AD(A-D)
 60.1f, 60.2f, 60.3f,60.5f, 60.4f, 60.3f, 60.2f, 71.3f, 71.4f, 71.5f, 71.6f, 71.7f, 71.6f,71.5f, 71.4f, 71.3f
```

```
TICKER: A(3)D(4)A(4)-D(5)
[60.1->60.3, 60.5-> 60.2, 71.3->71.7, 71.7->71.3]
```

ISSUES HERE
AD(A-D)

```
 //No issues with ascending following a previous D-A sequence
  60.5f,  60.4f,  60.3f,60.4f,  60.5f,  60.6f,  60.7f,  72.1f,  72.2f,  72.3f
```

```
TICKER: D(3)-A(5)A(3)
[60.5->60.3, 60.3->60.7, 72.1->72.3]
```

NO ISSUES

```
 //issues A-D-A-D
  60.1f,  60.2f,  60.3f,60.2f,  60.1f,60.2f,  60.3f,60.2f,  60.1f
```

```
***********TICKER*********: A(3)-D(3)-A(2)-D(3)
```

ISSUES HERE
A-D-(A-D)

All issues relate to
(A-D) which is preceded with anything. (tough to remediate without keeping a copy of the ticker
since it is unknown if there will be a D after the A).
The logic would be:
if A-D is in ticker (indexOf) AND if there is content before it,
Need to find indexOf A(X) within the chain A(X)->D(Y)
Increase the value of X by 1
Inform end user change has occurred due to A-D chain which has content before it

OR

A which is after (A-D) - slightly more simple to tackle. I will address this first.
The logic would be:
if A-D is in ticker (indexOf)
Need to find indexOf A(X) within the chain A(X)->D(Y)
Perform ascendingCounter++

NOTE: It should not be performed twice on the same ascending - descending sequence
block, so would need to keep exact location (indexOf).. We know it can not vary since the
ticker is not modified (with exception of the proposed modifications above).

TEST CASES

//No issues with Descending following a previous D-A sequence

//60.5f, 60.4f, 60.3f,60.4f, 60.5f, 60.6f, 60.7f, 72.1f, 72.0f, 1.9f, 71.8f, 71.7f, 71.8f,71.9f, 80.0f, 80.1f

//can see issues with A which is preceded with A-D sequence

60.1f, 60.2f, 60.3f,60.2f, 60.1f, 60.0f, 59.9f, 71.3f, 71.4f, 71.5f, 71.6f, 71.7f,55.0f,55.1f,55.2f

//issues if sequence is AD(A-D)

//60.1f, 60.2f, 60.3f,60.5f, 60.4f, 60.3f, 60.2f, 71.3f, 71.4f, 71.5f, 71.6f, 71.7f, 71.6f,71.5f, 71.4f, 71.3f

//No issues with ascending following a previous D-A sequence
//60.5f, 60.4f, 60.3f,60.4f, 60.5f, 60.6f, 60.7f, 72.1f, 72.2f, 72.3f

//issues A-D-A-D
//60.1f, 60.2f, 60.3f,60.2f, 60.1f,60.2f, 60.3f,60.2f, 60.1f