Homework 3: GC_content.py

You have a list of genes with 5'UTRs of different lengths. You are interested in knowing which gene out of your list has the highest %GC content in its 5'UTR. The gene name is followed by its 5' UTR sequence in the list. Write a python script that will determine the gene with the highest %GC content and will output that gene name followed by it's %GC content. If you want to copy/paste gene list into your terminal

```
genelist = ['NUDT21',
'CCTGCGGAAGATCGGCACTAGAATAGCCAGAACCGTTTCTCTGAGGCTTCCGGCCTTCCCTCCCACTAATAATTCTGAGG',
'HSPD1',
'CCATCGGTAGCGCATCCTTAGTCCAATTAAGTCCCTATCCAGGCGCTCCGCCGAAGGTCTATATCCATTTGTCAGCAGACACGC',
'TOP2B',
'CCACCCTCGTGGTATGGCTAGGCATTCAGGAACCGGAGAACGCTTCAGACCAGCCCGGACTGGGAACCTGCGGGCAGTAGGTGGAAT']
```

Breaking down the homework:
1. index the original list to return 2 separate lists, one containing gene names, the other containing sequences
2. create a formula for calculating GC content on one sequence in the list, once this formula is working use it within a for loop you will build in 3. You can erase this step once you imbed your formula in the for loop.
3. Build a for loop to iterate through the list containing sequences.
Within the for loop, imbed the formula you created in 2., however instead of acting on one sequence, your formula must act on the variable within the for loop.
append the output of the for loop to an empty list
4. Find the max of the list containing GC content.
5. Find the index of the max
6. Use this index to pull out the gene name of the gene with the highest GC content