19. (*expires 3/13*)   The text below was encrypted with a substitution cipher. Only the letters (both upper-case and lower-case) were substituted, leaving punctuation and spaces alone. Figure out what the original message was.

    ```
    "wA'r aBeD WUeK AP XNaB NM U rALKNP USUeAJBMA NM zUM nPrB ZNAW
    U JUM ZWP'r XBUeMNMO AP SXUD AWB aNPXNM." yWUA'r ZWUA rWB APXK
    AWB SPXNCB ZWBM rWB WUMKBK AWBJ AWB BJSAD eBaPXaBe.
              lNCWUeK heULANOUM, "yWB zCUeXUAAN yNXA"
    ```

    If you wish, you can find the encrypted text on the class web page at `http://www.math.sunysb.edu/~scott/mat331.spr14/problems/subscrypt.txt`.

    If you want to put the message into a maple string, you'll either have to read it from a file via a command like

    ```
    Crypto:=HTTP[Get]("www.math.sunysb.edu/~scott/mat331.spr14/problems/subscrypt.txt")[2];
    ```

    or prefix the quotation marks with a backslash (i.e., \") when typing them.

    Note also that I am not asking you to write `Maple` that solves *every* such problem; the easiest way to do this problem involves some guesswork as well as knowledge of how English sentences are structured.

    Hint: you might find `CountCharacterOccurences` *or* `CharacterFrequencies` *from the library* `StringTools` *helpful. Depending on how you do things,* `CharacterMap` *could also be useful.*

20. (*expires 3/13*)   The cryptography chapter in the notes is called "fsqFsHn sGGousG", which is actually the result of applying a Caesar cipher to its original title. A 53-character alphabet consisting of all the upper-case letters, a space, and all the lower-case letters was used; consequently the space in the middle might or might not correspond to a space in the title. Determine what the original title was.