# *Introduction of computer usage in biological research*

*- Practice*

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*2019. szeptember 11.*

Solve the below tasks in the Terminal using commandline. Copy the actual commands below each point from the Terminal:

1. Download the sequence file of the 21st Human chromosome from here: hgdownload.soe.ucsc.edu/goldenPath/hg38/chromosomes/ chr21.fa.gz
2. Unzip it Use: unzip
3. Rename the extracted file to human\_21.fasta Use: mv
4. Open it with less
5. Count the number of its lines in this file Use: wc -l
6. Write its first 125 lines to a file Use: head -n 125 >
7. Write its last 42 lines to a file Use: tail -n 42 >
8. Count the occurance of telomer sequences (TTAGGG) in its first

125 lines Use: grep -o "TTAGGG"

1. Write a shell script that downloads, unzips, renames the sequence file of the 21st chromosome and counts the telomers in the first 125 lines