Barium line with Pymoogi

Exercise 1:
Measure the abundance of Ba 5853 A line with pymoogi in the Sun using synthe_ba.par file.

Reminder!
To run pymoogi:
> pymoogi synthe_ba.par

Exercise 1a:
Is the profile of the line matching the observed spectrum?
-Is the synthetic line shifted with respect to the observed line?
-Is the profile of the synthetic line matching the profile of the observed line?

Exercise 2a:
What is the abundance of Ba in the Sun?
Tip: Try to change the abundances in the par file to find which one is, in your opinion, the best fit. You can also use the residual plot to help you in the abundance determination.

Exercise 2:
Measure the abundance of Ba 5853 A line with pymoogi in the Sun using synthe_ba_i.par file.

Exercise 2a:
Is the new value equal or not to the value found in the previous exercise?
Why?

Tip: look at the .par files ;)

Exercise 3 (optional):
Choose a line that you like and produce a line lists using LINEMAKE, then measure the abundance in the Sun.

Linemake is a program for creating line lists, more info and how to install linemake on your laptop are given on the site: (https://github.com/vmplacco/linemake)