

Class messages:

Date	Message
09/04/2020	<p>Dear 1st grade students,</p> <p>we should wake up our ICT-MIL class from the "vacant period" - now we are officially on the distant education again.</p> <ol style="list-style-type: none">1. I am still collecting the LSM homework if you have not sent it yet, please, do it!2. I think that by the end of this week I should post online a key to 5th problem as it turned out to be the most difficult part.3. We should continue with gnuplotting according to the instructions provided below.4. If you have problems with solving the LSM problems or with GNUPLOT, please, ask specific questions. <p>GNUPLOT INFO:</p> <p>GNUPLOT is a free soft tool which is powerful enough and allows you to do a lot of things:</p> <ol style="list-style-type: none">1) plot functions, like $\sin(x)$ or whatsoever, the command for that is "plot $\sin(x)$"2) plot another function on the same plot, command "replot $\cos(x)$"3) set grid, labels, change font, set title4) plot data points from a file, do simple math operations on the data points, combine (using math operations) columns of the data file,5) produce multiplot - a plot which includes a number of different plots inside6) set secondary axes7) plot 3D , command "splot...."8) smooth or fit data points, providing coefficients... <p>It has a command line, so all operations are realized through text commands It has powerful help - it is useful to find exact syntax of the commands, when you want to do something and know that this something is possible</p> <p>official web page http://www.gnuplot.info/</p> <p>the link to install software (use the official distribution only!): https://sourceforge.net/projects/gnuplot/files/gnuplot/5.2.8/</p> <p>Here are links to tasks and descriptions: http://rplab.ru/~ylobanov/Information%20&%20Communication%20Technologies%20an</p>

[d%20Media-Information%20Literacy/4-GNUPLOT/](http://rplab.ru/~ylobanov/Information%20&%20Communication%20Technologies%20and%20Media-Information%20Literacy/4-GNUPLOT/)

http://rplab.ru/~ylobanov/Information%20&%20Communication%20Technologies%20and%20Media-Information%20Literacy/4-GNUPLOT/GNUPLOT_eng.pdf

What to do:

0) download and install the software

1) learn how to use GNUPLOT using introduction and training tasks (see the link above), reproduce all the suggested plots

2) try to plot data points and the fitting curve for one of your LSM problems using GNUPLOT. To do that, put your data points into a text file, then plot a fitting curve as a function. Use "points" to plot data points, use "lines" to plot fitting curve.

2a) Bonus. Learn how to ask GNUPLOT to fit your data points and find the LSM coefficients for you.

3) decorate the plot adding xlabel, ylabel, title, other labels,....

4) the final plot should be saved as png or pdf file, and send as a report.

HINTS:

1) it is convenient to type all your commands into a *.txt file and then just load it using gnuplot : File -> load... and choose a proper file:

```
>> load 'my_file.txt'
```

2) If you plot a data file, provide GNUPLOT with the complete address of the file starting from disk like:

```
>> replot "d:\users\Folder1\my_file.txt"
```

best regards,
Y.V. Lobanov.