Task 1.

Write Scilb code and plot the Lagrange's polynomial *P(x)* that passes the points

$x_0 = 1$ $x_1 = 1.5$ $x_2 = 2.8$ $x_3 = 3.4$

$y_0 = 2$ $y_1 = 3$ $y_2 = 4$ $y_3 = 5$

What is the value of *P*(2)?

Task 2.

Calculate the integral

$$\int_0^2 e^{x \sin(1/(1+x))}\, dx$$

using Simpson's formula and dividing the segment [0, 2] into *n*=50 subsegments.