



The thin flat sheet shown above has density

$$\rho = \frac{y^2 \cos(x+y)}{x+2y+1} + y^3 e^{\frac{2x+3y}{x+y+1}}$$

The mass of the thin flat is given by the following double integral:

$$\text{mass} = \int_2^4 dx \int_g^h dy \cdot \rho \quad \left| \begin{array}{l} g = \text{lower function on graph} \\ h = \text{upper function on graph} \end{array} \right.$$

Write a MATLAB program to calculate and print the mass of the thin flat sheet. The output of this program should look like this:

mass=38721.48071