1. (5 points) Write the general solution of the differential equation

\[ y'' = -y - y'. \]

2. (10 points) Compute the double integral \( \iiint_R y^2 \, dx \, dy \), where \( R \) is the region inside the ellipse \( x^2/4 + y^2/9 = 1 \), using the change of variables:

\[ \begin{cases} x = 2r \cos(\theta) \\ y = 3r \sin(\theta) \end{cases}, \quad 0 \leq r \leq 1, \quad 0 \leq \theta \leq 2\pi \]