

**Exercise 1** Evaluate the integral

$$I = \int_0^2 \int_0^{9-x^2} \int_3^{4-x^2-y} x dz dy dx$$

**Exercise 2** Evaluate the integral by changing the order of integration in an appropriate way

$$J = \int_0^4 \int_0^1 \int_{x^2}^1 12xz e^{zy^2} dy dx dz$$