

**Exercise 1** Evaluate the integral

$$I = \int_0^3 \int_0^{\sqrt{9-x^2}} \int_0^{\sqrt{9-x^2}} dz dy dx$$

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

$$J = \int_0^4 \int_0^1 \int_{2y}^2 \frac{2 \cos(x^2)}{\sqrt{z}} dx dy dz$$