Homework10

1. Evaluate the iterated integral.

(a)
$$\int_{1}^{3} \int_{0}^{y} \frac{4}{x^{2} + y^{2}} dx \, dy$$

(b)
$$\int_{0}^{\ln 10} \int_{e^{x}}^{10} \frac{1}{\ln y} dy \, dx$$

2. Evaluate the double integral.

$$\int_{0}^{4} \int_{0}^{\sqrt{4y-y^{2}}} x^{2} \, dx \, dy$$