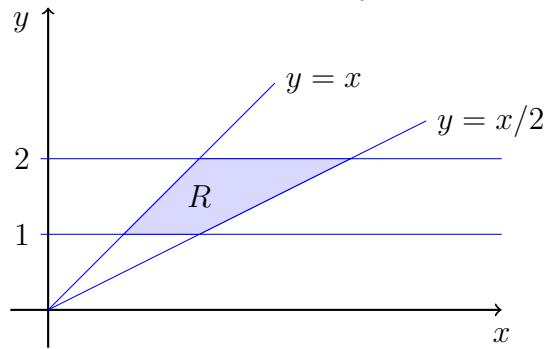


## DOUBLE INTEGRALS (CARTESIAN)

1. Evaluate the integral  $\iint_R \frac{\sin y}{y} dA$  where  $R$  is the region shown below.



2. Evaluate the integral  $\int_0^1 \int_0^{\pi/2} x \cos(xy) \, dx \, dy$ . Hint: consider changing the order of integration.

3. Evaluate the integral  $\int_0^4 \int_{\sqrt{y}}^2 \sqrt{x^3 + 1} \, dx \, dy$ . Hint: consider changing the order of integration.