

- ① Find the volume of the region
 $\{(x, y, z) \mid 0 \leq x^5 \leq y^3 \leq z \leq 1\}$.
- ② Find the average value of x/y in the
region $\{(x, y) \mid x+y \leq 5 \text{ \& } y-x^2 \geq 1 \text{ \& } y \leq 5\}$.
- ③ Find $\iint_{\triangle ABC} e^{xy} dx dy$ where
 $A = (0, 1), B = (1, 0), C = (2, 2)$.