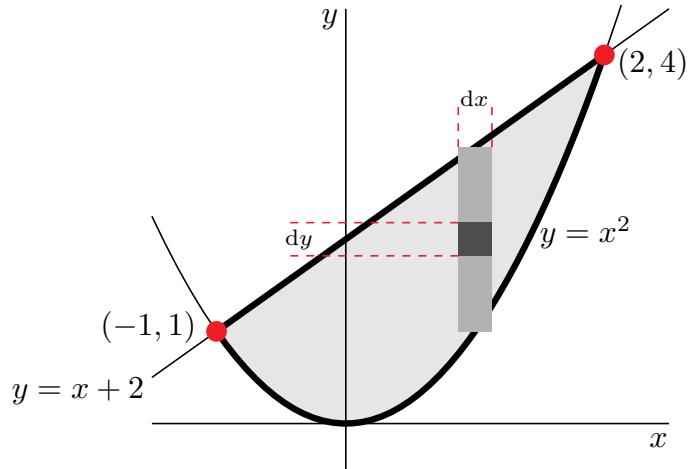


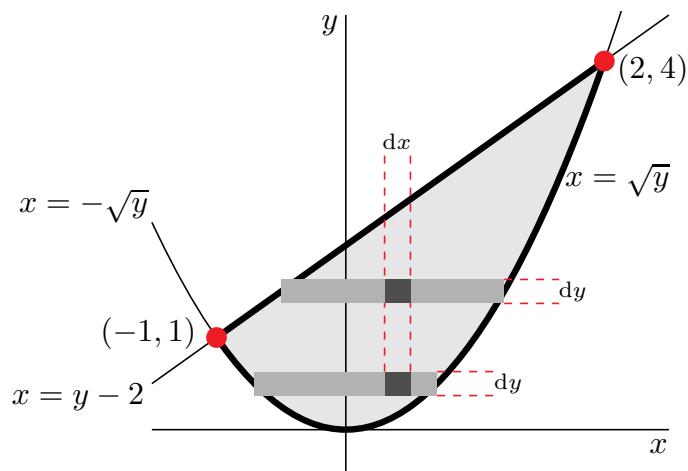
## Reversing the Order of Integration Example



$$-1 \leq x \leq 2$$

for each  $x$ ,  $x^2 \leq y \leq x + 2$

$$\int_{-1}^2 dx \int_{x^2}^{x+2} dy f(x, y)$$



$$0 \leq y \leq 4$$

for each  $0 \leq y \leq 1$ ,  $-\sqrt{y} \leq x \leq \sqrt{y}$

for each  $1 \leq y \leq 4$ ,  $y - 2 \leq x \leq \sqrt{y}$

$$\int_0^1 dy \int_{-\sqrt{y}}^{\sqrt{y}} dx f(x, y) + \int_1^4 dy \int_{y-2}^{\sqrt{y}} dx f(x, y)$$