

$$\int_{-1}^1 \int_{-2}^2 \neq 27$$

$$\int_{x=-1}^{x=1} \int_{y=-2}^{y=2} \left(1 - \frac{x^2}{4} - \frac{y^2}{9}\right) dy dx$$

Cool-

$$\int_{-1}^1 \int_{-2}^2 \left(1 - \frac{x^2}{4} - \frac{y^2}{9}\right) dy dx = \frac{166}{27}$$

$$\int_0^1 \int_0^2 4 \cdot \left(1 - \frac{x^2}{4} - \frac{y^2}{9}\right) dy dx = \frac{166}{27}$$

is even wrt x-variable
func.

$$\int \left(1 - \frac{x^2}{4} - \frac{y^2}{9}\right) dy = y - \frac{1}{4} x^2 y - \frac{1}{27} y^3$$