

Multiple Integrals - Part #1

SPRING 2018

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Name _____

1. Compute: $\int_1^2 \int_{-1}^1 \int_0^2 xyz \, dx \, dy \, dz$

2. Compute: Compute: $\int_0^9 \int_0^{\frac{y}{3}} \int_0^{\sqrt{y^2-9x^2}} z \, dz \, dx \, dy$

3. Reverse the order of integration:

$$\int_{-3}^3 \int_0^{\sqrt{9-x^2}} f(x, y) \, dy \, dx$$