

$$\int_0^1 \int_0^{\frac{\pi}{2}} \int_0^{1-r^2} r^4 \cdot \cos(t) \, dz \, dt \, dr$$

$$\frac{2}{35}$$

**(1)**

$$\int_0^{\frac{\pi}{2}} \int_0^1 \int_0^{1-r^2} r^4 \cdot \cos(t) \, dz \, dr \, dt$$

$$\frac{2}{35}$$

**(2)**

$$\int_0^1 \int_0^{\sqrt{1-x^2}} \int_0^{1-x^2-y^2} (x^3 + x \cdot y^2) \, dz \, dy \, dx$$

$$\frac{2}{35}$$

**(3)**