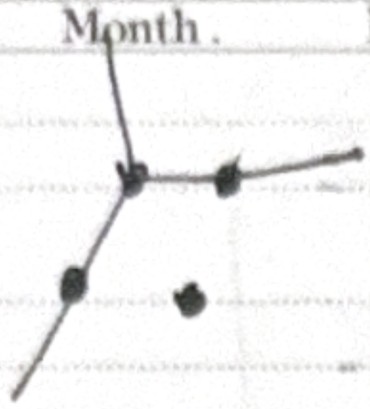
Subject: Session 81

Year. Month. Date. ( )

1. 

$n = \langle 0, 0, +1 \rangle$

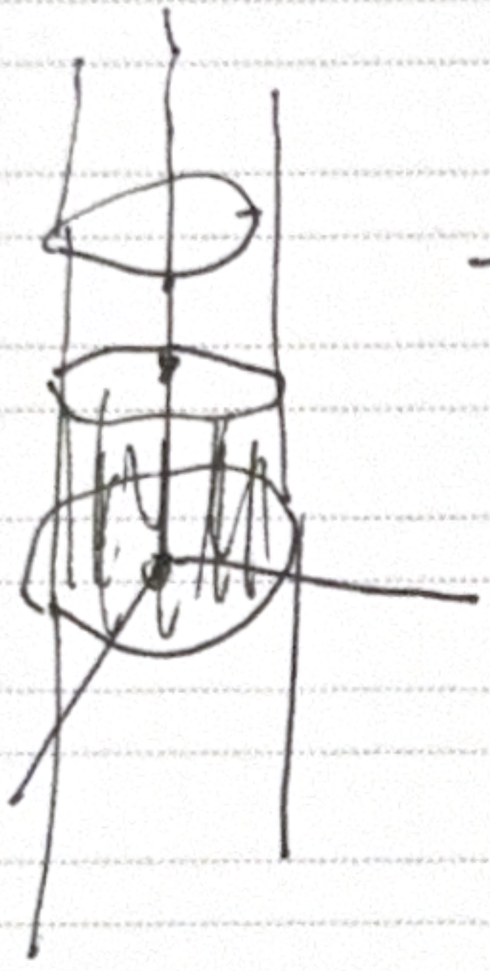
$F \cdot n = z = 0$

$\sqrt{2}$

2. 

$n = \langle 0, 0, 1 \rangle$

$F \cdot n = 1 = z$

3. 

$$\iint_R 1 \, dS = 1$$

$n = \langle x, y, 0 \rangle$

$F \cdot n = x^2 + y^2$

$$\int \int_R (x^2 + y^2) \, r \, dz \, d\theta$$

$$= \int_0^{2\pi} \int_0^1 1 \, dz \, d\theta = \int_0^{2\pi} 1 \, d\theta = 2\pi$$