Subject: session87

Year. Month. 1 Date.

1. $A = \frac{1}{4\pi} \int_0^{2\pi} \int_0^{\pi} u(R\sin\phi\cos\theta, R\sin\phi\sin\theta, R\cos\phi) R^2 \sin\phi \, d\phi \, d\theta$

2. $\frac{dA}{dR} = \frac{1}{4\pi} \int_0^{2\pi} \int_0^{\pi} (u_x \sin\phi\cos\theta + u_y \sin\phi\sin\theta + u_z\cos\phi)\sin\phi \, d\phi \, d\theta$

3. $\frac{1}{4\pi R^2} \iint_{S_R} \nabla u \cdot n \, dS$

4. $\frac{dA}{dR} = \frac{1}{4\pi R^2} \iiint_D \nabla \cdot \nabla u \, dv = 0$