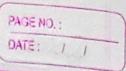
	Mothemotica fele
	Section A (a) Mothematica felle Defining a Spheroid. Mb PAGE NO.: DATE: //
	POLICEDIT >
	OPHEROID→
	The surface of ellipsoid centred at the origin of a castesian co-ordinate system is given by \[\frac{\chi^2 + \frac{\chi^2}{c^2} + \frac{\chi^2}{c^2} - 1}{\chi^2 + \frac{\chi^2}{c^2}} = 1 \] \[\text{(1)} \text{(2)} \]
	spheroid given by equation
	$\frac{(1^{2} \chi^{2} + y^{2} + z^{2} - 1)}{a^{2} + a^{2} + c^{2}} = 1 - (2)a$
	Since, we are interested to study about the non uniformity of a sphere,
	we put $a = R + E$, $c = R + E$ mention epsilon $\leq R$
→	$\frac{x^2 + y^2}{(R + \epsilon)^2} + \frac{z^2}{(R - \epsilon)^2} = 1 - 3a$
	Converting egn 3a in spherical co-ordinates
	x= γ Sin O Cos φ } y = γ Sin O Sin φ } - (4) a and spherical cordiante z = γ (0) 0
	Putting eq 4a in eq 3a,
	$\frac{2^2 \sin^2 \theta}{(R+\epsilon)^2} + \frac{8^2 \cos^2 \theta}{(R-\epsilon)^2} = 1 - \cancel{\epsilon} a$ Teacher's Signature
	$(R+E)^2$ Teacher's Signature



$$\Rightarrow \frac{7^{2} \sin^{2} O(R-\epsilon)^{2} + \sigma^{2} \cos^{2} O(R+\epsilon)^{2}}{(R-\epsilon)^{2} (R+\epsilon)^{2}} = 1 - 60$$

$$\gamma^{2} = \frac{(R+E)^{2}(R-E)^{2}}{\sin^{2}\theta(R-E)^{2} + \cos^{2}\theta(R+E)^{2}}$$
 $(R+E)^{2}$

Taking square root both the sides

$$\gamma = \pm (R^{2} - \epsilon^{2}) - 8a$$

$$-8a$$

$$-8a$$

$$-8a$$

$$\Upsilon = \pm \frac{(R^2 - \epsilon^2)}{R^2 + \epsilon^2 - 2\epsilon R \left(8in^2 0 - \cos^2 \theta\right)} - \frac{9a}{10a}$$

$$\Upsilon = \pm \frac{(R^2 - \epsilon^2)}{(R^2 - \epsilon^2)} - \frac{10a}{10a}$$

$$\Upsilon = \pm (R^{2} - E^{2}) - (10)a$$

$$\int R^{2} + E^{2} + 2ER \cos(20)$$

$$\mathcal{T} = \frac{\pm R^2 (1 - \epsilon^2 / R^2)}{R^2 (1 + \epsilon^2 / R^2 + 2\epsilon / R \cos(2\theta))} - (11) \alpha$$

again mention "s" approch zero since you introduced s here, put it red box
$$\Upsilon = \pm R \left(1 - \delta^2 \right)$$

$$T = \pm R (1-3^2) - 12a$$

$$\sqrt{(1+3^2+28\cos(20))} - 12a$$

New taylor expanding the RHS about a liptor first order of a ranke given

$$T = f(s) = \pm R(1-8^2)$$

$$1 + 8^2 + 28\cos(20) - 63a$$
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Taylor expansion of a function of 3 about 0 is

$$f(s) = f(0) + f'(0) + f''(0) + f''(0) + f''(0) + f''(0) + f'(0) + f'(0) + f'(0) + f''(0) +$$

$$f'(8) = -2RS(I+S^2+2SCOS(20)) - R(2S+2COS(20))$$

 $= -2RS(I+S^2+2SCOS(20)) - R(2S+2COS(20))$

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$$f'(s)|_{s=0} = -R \cos(20)$$

$$r(0) = f(s) = R - Rs cos(20) - (5)a$$

-> parametric equation of spheroid.