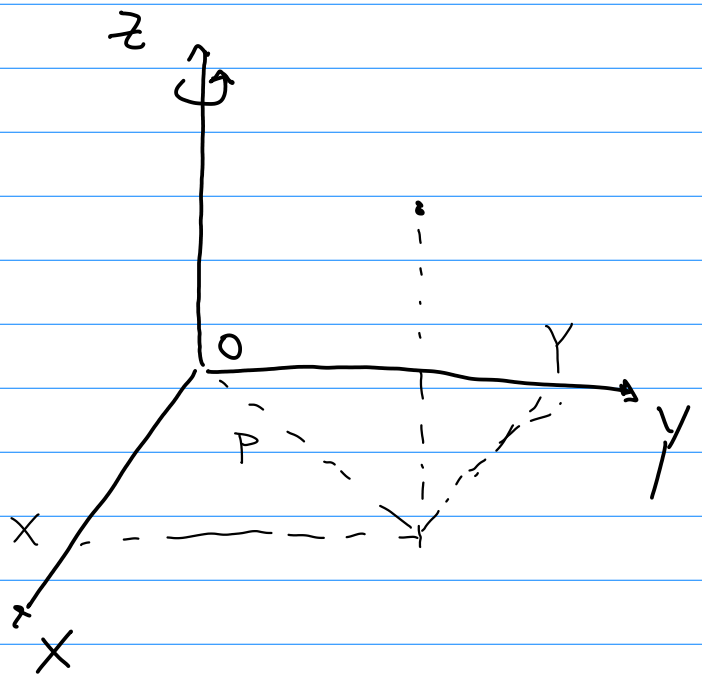
$$\phi(X,Y,Z) = \frac{10^5}{2}\omega^2 \overbrace{(X^2+Y^2)}^{P^2}$$

$$\nabla\phi = 10^5 \begin{bmatrix} \omega^2 X \\ \omega^2 Y \\ 0 \end{bmatrix}$$



$$a_c = 10^5 \sqrt{(\omega^2 X)^2 + (\omega^2 Y)^2}$$

$$= 10^5 \omega^2 \sqrt{X^2+Y^2}$$

$$X = (N+h)\cos\varphi\cos\lambda$$
$$Y = (N+h)\cos\varphi\sin\lambda$$

$$X^2 + Y^2 = (N+h)^2\cos^2\varphi$$

$$X^2 = (N+h)^2\cos^2\varphi\cos^2\lambda$$
$$Y^2 = \quad " \quad " \quad \sin^2\lambda$$

$$N = \frac{a}{\sqrt{1-e^2\sin^2\varphi}}$$

$$a_c = 10^5\omega^2(N+h)\cos\varphi$$

$$e^2 = \frac{a^2-b^2}{b^2}$$

p/ $h=0$

$$a_c = 10^5\omega^2 N\cos\varphi$$

sup. do elipsoide

$$\left(100 \times \frac{a_c}{\gamma}\right) \times \varphi \quad \varphi: 0 \to 90$$