

15-MAVZU

**IKKINCHI TARTIBLI SIRTLAR VA
ULARNI KANONIK KO'RINISHGA
KELTIRISH**

UMUMIY KO'RINISHI

$$\begin{aligned} Ax^2 + By^2 + Cz^2 + 2Dxy + 2Exz + 2Fyz \\ + 2Gx + 2Hy + 2Iz + Y = 0 \end{aligned}$$

Ellipsoid

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} + \frac{z^2}{c^2} = 1$$

a = b = c holda

x² + y² + z² = a² sfera

tenglamasi

BIR PALLALI GİPERBOLID

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} - \frac{z^2}{c^2} = 1$$

IKKI PALLALI GIPERBOLID

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} - \frac{z^2}{c^2} = -1$$

KONUS

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} - \frac{z^2}{c^2} = 0$$

ELLIPTIK PARAPOLID

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = z$$

GİPERBOLİK PAROBOLID

$$\frac{x^2}{a^2} - \frac{y^2}{b^2} = z$$

ELLIPTIK SILINDR

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$$

GİPERBOLİK SILINDİR

$$\frac{x^2}{a^2} - \frac{y^2}{b^2} = 1$$

PARABOLIK SILINDR

$$y^2 = 2px$$

IKKI KESISHUVCHI TEKISLIK

$$y^2 - k^2x^2 = 0$$

Ikki parallel tekislik

$$y^2 - k^2 = 0$$

TO'G'RI CHIZIQ

$$x^2 + y^2 = 0$$

NUQTA

$$x^2 + y^2 + z^2 = 0$$

BO'SH TO'PLAM

$$x^2 + y^2 + z^2 = -1$$