

# CUÁDRICAS

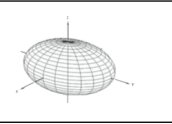
CUÁDRICAS CON CENTRO

$$Ax^2 + By^2 + Cz^2 = D$$

$$Ax^2 + By^2 + Cz^2 = 1$$

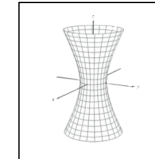
$$\frac{x^2}{a^2} + \frac{y^2}{b^2} + \frac{z^2}{c^2} = 1$$

Elipsoide real



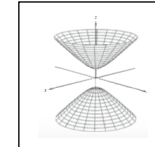
$$\frac{x^2}{a^2} + \frac{y^2}{b^2} - \frac{z^2}{c^2} = 1$$

Hiperboloide de una hoja



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

Hiperboloide de dos hojas



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

Elipsoide imaginario

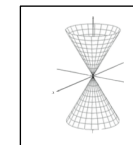
$$\frac{x^2}{a^2} + \frac{y^2}{b^2} + \frac{z^2}{c^2} = 0$$

Cono imaginario. Un punto real

$$Ax^2 + By^2 + Cz^2 = 0$$

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

Cono real

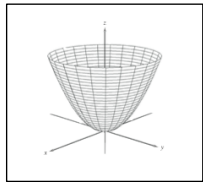


PARABOLOIDES

$$z = Ax^2 + By^2$$

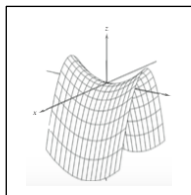
$$z = \frac{x^2}{a^2} + \frac{y^2}{b^2}$$

Paraboloide elíptico



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

Paraboloide hiperbólico



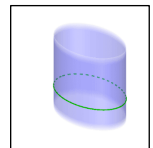
CILINDROS CON RECTA DE CENTROS

$$Ax^2 + By^2 = C$$

$$Ax^2 + By^2 = 1$$

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

Cilindro elíptico real

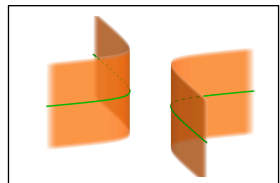


$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = -1$$

Cilindro elíptico imaginario

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

Cilindro hiperbólico



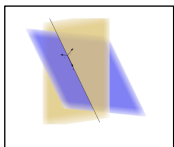
$$Ax^2 + By^2 = 0$$

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

Dos planos imaginarios secantes en una recta real

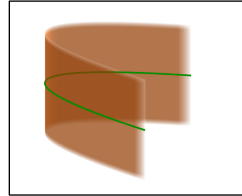
$$\frac{x^2}{a^2} - \frac{y^2}{b^2} = 0$$

Dos planos reales secantes



CILINDROS  
PARABÓLICOS

$$x^2 = 2py$$



PLANOS  
PARALELOS

$$x^2 = K$$

$$x^2 = k^2$$

Dos planos reales paralelos

$$x^2 = -k^2$$

Dos planos imaginarios paralelos

$$x^2 = 0$$

Un plano doble