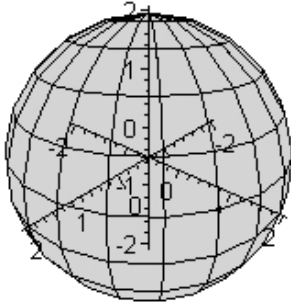


# KVADRIKY

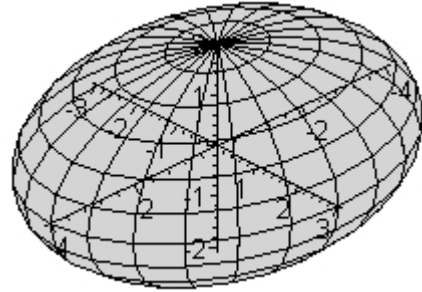
**Kulová plocha** se středem  $S [m, n, p]$  a poloměrem  $r$ :

$$(x - m)^2 + (y - n)^2 + (z - p)^2 = r^2$$



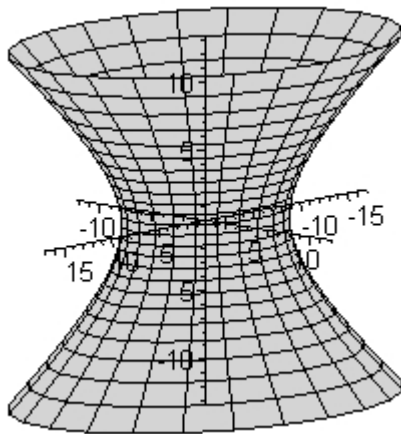
**Elipsoid** se středem v počátku:

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



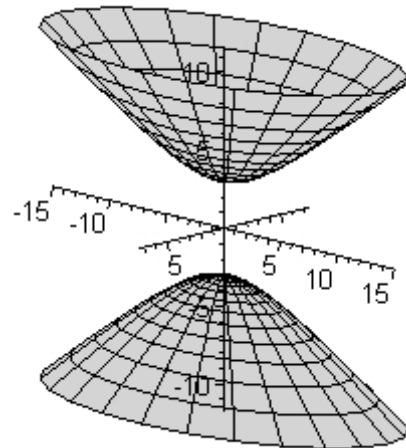
**Jednodílný hyperboloid** se středem v počátku:

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



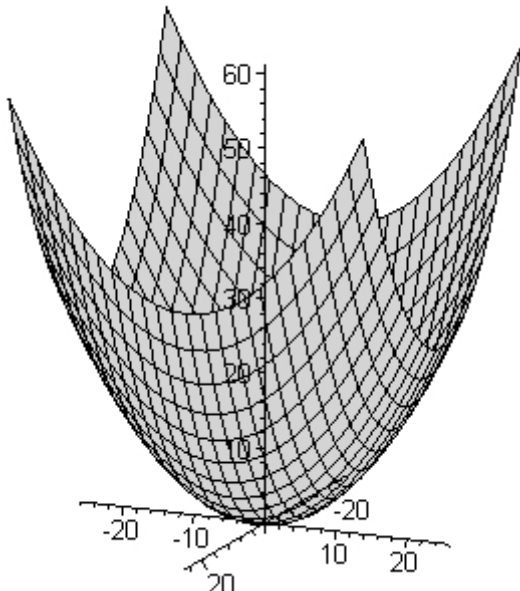
**Dvoudílný hyperboloid** se středem v počátku:

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



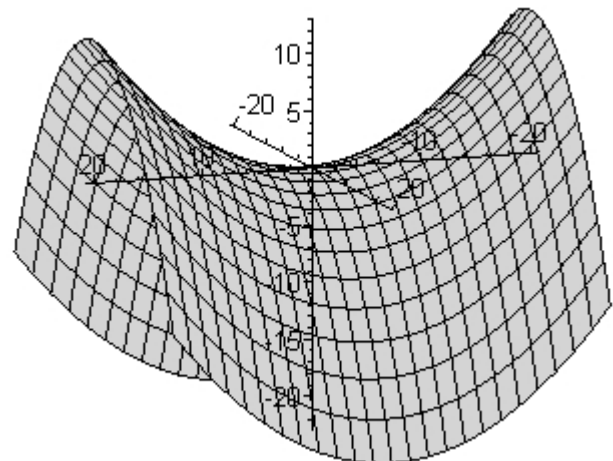
**Eliptický paraboloid** s vrcholem v počátku:

$$z = \frac{x^2}{2p} + \frac{y^2}{2q}$$



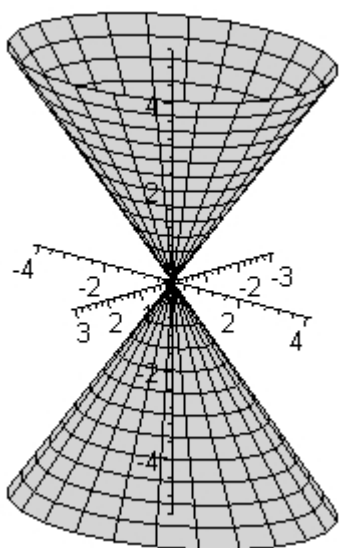
**Hyperbolický paraboloid** s vrcholem v počátku:

$$z = \frac{x^2}{2p} - \frac{y^2}{2q}$$



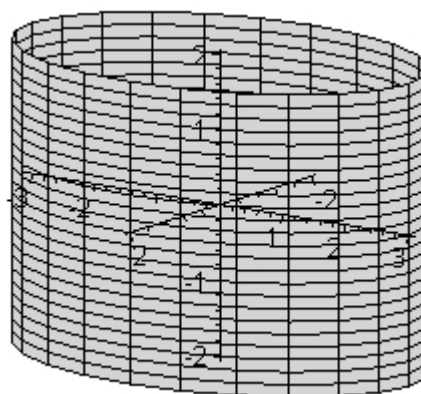
**Kuželová plocha** s vrcholem v počátku:

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



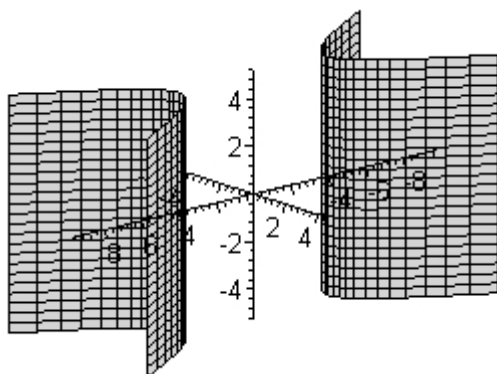
**Eliptická válcová plocha:**

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



**Hyperbolická válcová plocha:**

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



**Parabolická válcová plocha:**

$$y^2 = 2px$$

