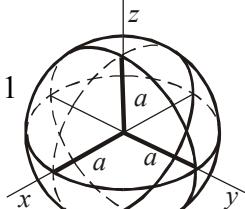


1. Guľová plocha:

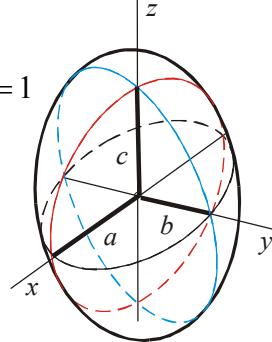
$$\frac{x^2}{a^2} + \frac{y^2}{a^2} + \frac{z^2}{a^2} = 1$$



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

2. Elipsoid:

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



3. Jednodielny hyperboloid:

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

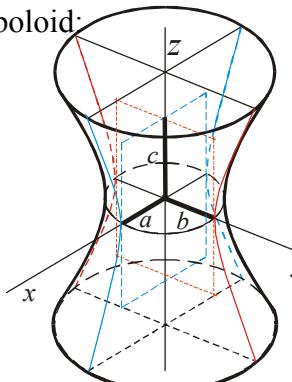
os  $z$ :

v rovnici pri premennej  $z$  je znamienko '-'

Pravá strana rovnice '+1'

určí typ hyperboloidu:

jednodielny



4. Dvojdielny hyperboloid:

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

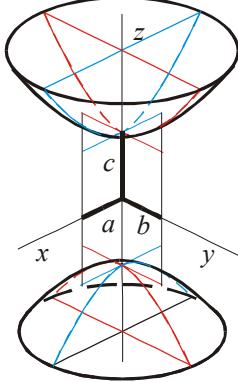
os  $z$ :

v rovnici pri premennej  $z$  je znamienko '-'

Pravá strana rovnice '-1'

určí typ hyperboloidu:

dvojdielny



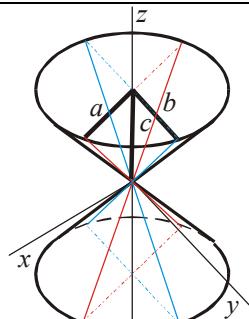
5. Kužeľová plocha:

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

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

vzhľadom na os  $z$

v rovnici nie je absolútne člen  
(porovnaj s rovnicou elipsoidu)



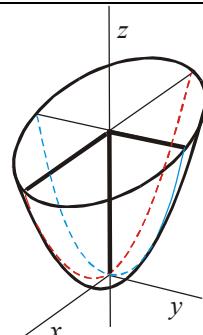
6. Eliptický paraboloid:

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

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

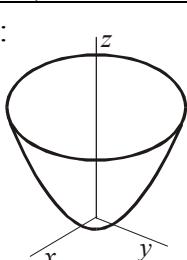
os  $z$ :

v rovnici premenná  $z$  má exponent '1'



7. Rotačný paraboloid:

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



os  $z$ :

v rovnici premenná  $z$  má exponent '1'

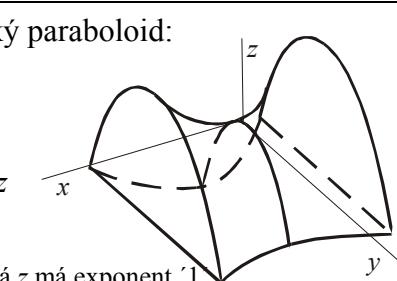
8. Hyperbolický paraboloid:

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

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

os  $z$ :

v rovnici premenná  $z$  má exponent '1'

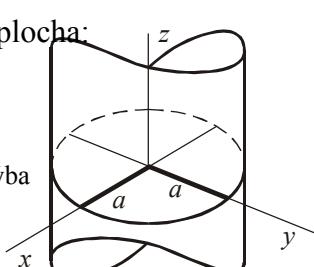


9. Rotačná valcová plocha:

$$x^2 + y^2 = a^2$$

s osou  $z$ :

v rovnici premenná  $z$  chýba

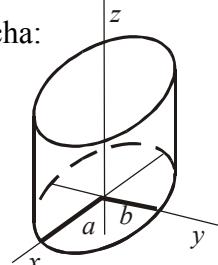


10. Eliptická valcová plocha:

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

s osou  $z$ :

v rovnici premenná  $z$  chýba

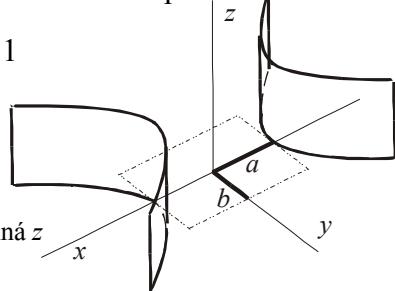


11. Hyperbolická valcová plocha:

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

s osou  $z$ :

v rovnici premenná  $z$  nie je



12. Parabolická valcová plocha:

$$y^2 = 2px$$

s osou  $z$ :

v rovnici premenná  $z$  nie je

