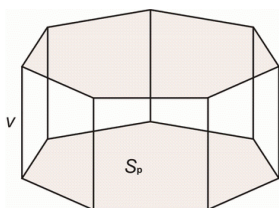


STEREOMETRIE – OBJEMY A POVRCHY TĚLES

PRAVIDELNÝ HRANOL

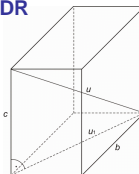


$$V = S_p \cdot v$$

$$S = 2S_p + Q$$

STEREOMETRIE – OBJEMY A POVRCHY TĚLES

KVÁDR

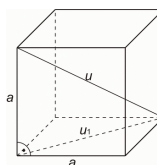


$$V = abc$$

$$S = 2(ab + ac + bc)$$

$$u = \sqrt{a^2 + b^2 + c^2}$$

KRYCHLE



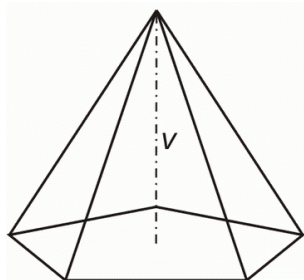
$$V = a^3$$

$$S = 6a^2$$

$$u = \sqrt{3a^2} = a\sqrt{3}$$

STEREOMETRIE – OBJEMY A POVRCHY TĚLES

JEHLAN

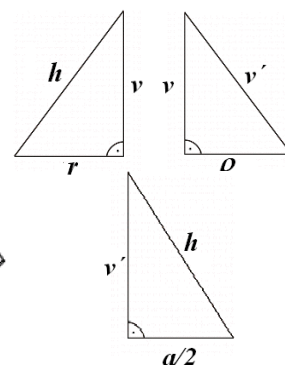
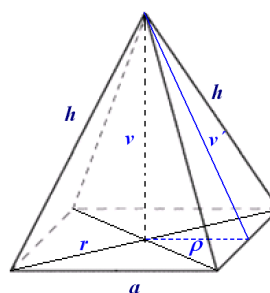


$$V = \frac{1}{3} P \cdot v$$

$$S = P + Q$$

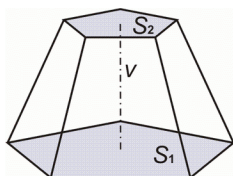
P – obsah podstavy
Q – obsah pláště
v – výška tělesa

STEREOMETRIE – OBJEMY A POVRCHY TĚLES

PRAVIDELNÝ JEHLAN
Vztahy mezi délkami

STEREOMETRIE – OBJEMY A POVRCHY TĚLES

KOMOLÝ JEHLAN:



OBJEM :

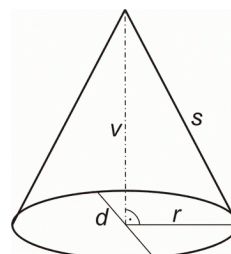
$$V = \frac{v}{3} (S_1 + \sqrt{S_1 S_2} + S_2)$$

POVRCH :

$$S = S_1 + S_2 + S_{pl}$$

STEREOMETRIE – OBJEMY A POVRCHY TĚLES

KUŽEL:



OBJEM :

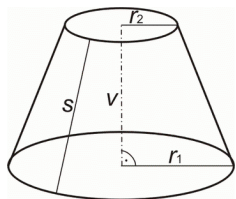
$$V = \frac{1}{3} \pi r^2 v$$

POVRCH :

$$S = \pi r^2 + \pi r s$$

STEREOMETRIE – OBJEMY A POVRCHY TĚLES

KOMOLÝ KUŽEL:

**OBJEM :**

$$V = \frac{\pi v}{3} (r_1^2 + r_1 r_2 + r_2^2)$$

POVRCH :

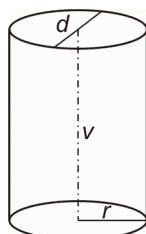
$$S = \pi r_1^2 + \pi r_2^2 + S_{pl}$$

$$S_{pl} = \pi (r_1 + r_2) s$$

$$s = \sqrt{v^2 + (r_1 - r_2)^2}$$

STEREOMETRIE – OBJEMY A POVRCHY TĚLES

VÁLEC:

**OBJEM :**

$$V = \pi r^2 v$$

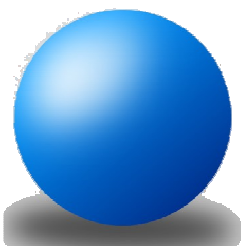
POVRCH :

$$S = 2\pi r^2 + 2\pi r v$$

$$S = 2\pi r (r + v)$$

STEREOMETRIE – OBJEMY A POVRCHY TĚLES

KOULE:

**OBJEM :**

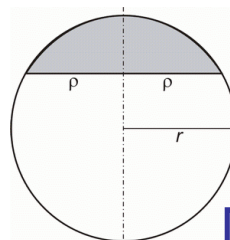
$$V = \frac{4}{3} \pi r^3 = \frac{1}{6} \pi d^3$$

POVRCH :

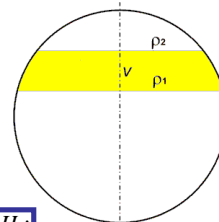
$$S = 4\pi r^2 = \pi d^2$$

STEREOMETRIE – OBJEMY A POVRCHY TĚLES

KULOVÝ VRCHLÍK

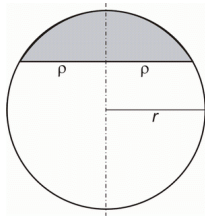
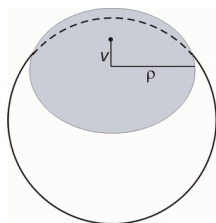


KULOVÝ PÁS

**OBSAH :**
 $S = 2\pi r v$

STEREOMETRIE – OBJEMY A POVRCHY TĚLES

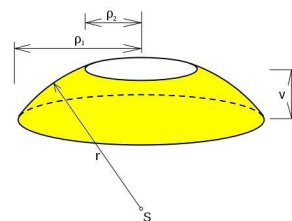
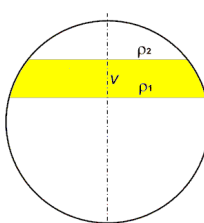
KULOVÁ ÚSEČ

**OBJEM :**

$$V = \frac{\pi v}{6} (3\rho^2 + v^2)$$

STEREOMETRIE – OBJEMY A POVRCHY TĚLES

KULOVÁ VRSTVA

**OBJEM :**

$$V = \frac{\pi v}{6} (3\rho_1^2 + 3\rho_2^2 + v^2)$$