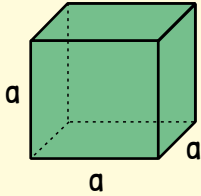


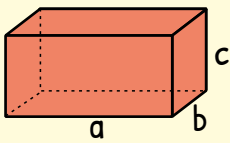
## Körper (Volumen, Oberfläche) - Formeln

### Würfel & Quader



$$O = 6a^2$$

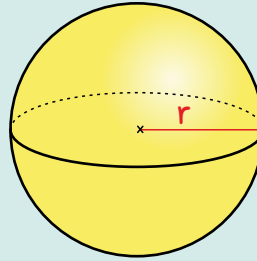
$$V = a^3$$



$$O = 2ab + 2ac + 2bc$$

$$V = a \cdot b \cdot c$$

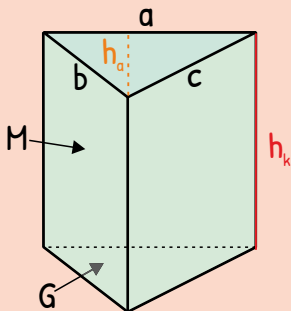
### Kugel



$$O = 2 \cdot \pi \cdot r^2$$

$$V = \frac{4 \cdot \pi \cdot r^3}{3}$$

### Dreiecksprisma



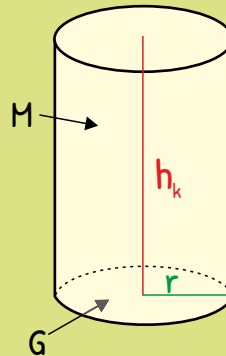
$$O = 2 \cdot G + M$$

$$O = ah_a + (a+b+c)h_k$$

$$V = G \cdot h_k$$

$$V = \frac{a \cdot h_a}{2} \cdot h_k$$

### Zylinder



$$O = 2 \cdot G + M$$

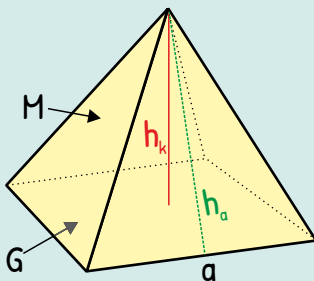
$$O = 2 \cdot \pi \cdot r \cdot (r + h_k)$$

$$O = 2\pi r^2 + 2\pi rh$$

$$V = G \cdot h_k$$

$$V = r^2 \cdot \pi \cdot h_k$$

### Pyramide



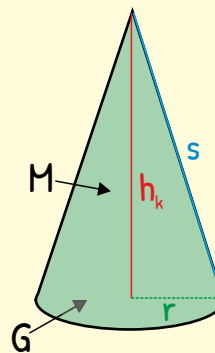
$$O = G + M$$

$$O = a^2 + 2 \cdot a \cdot h_a$$

$$V = \frac{G \cdot h_k}{3}$$

$$V = \frac{a^2 \cdot h_k}{3}$$

### Kegel



$$O = G + M$$

$$O = r^2 \cdot \pi + r \cdot \pi \cdot s$$

$$O = r \cdot \pi \cdot (r + s)$$

$$V = \frac{r^2 \cdot \pi \cdot h}{3}$$

V - Volumen, O - Oberfläche, G - Grundfläche, M - Mantelfläche,  $\pi$  - Kreiszahl (Ludolfsche Zahl)