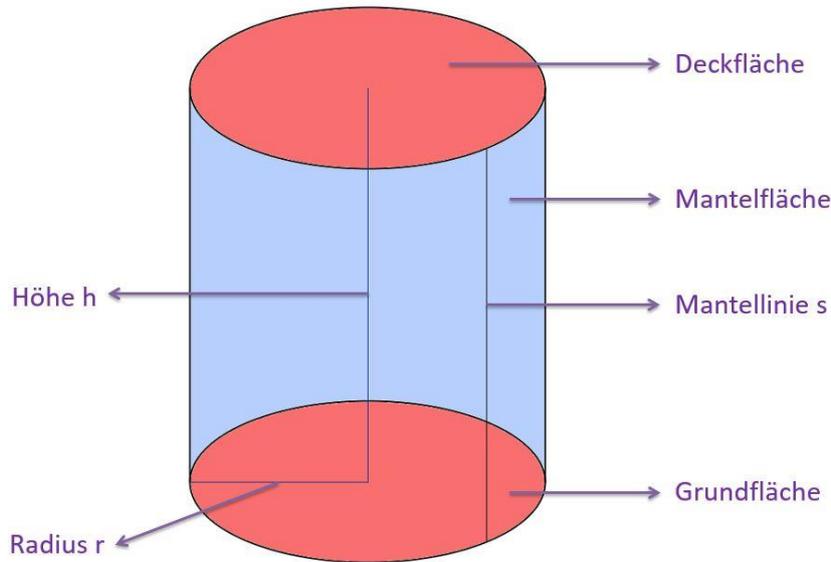


Der Zylinder – Formelsammlung

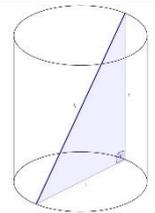


Mantelfläche:



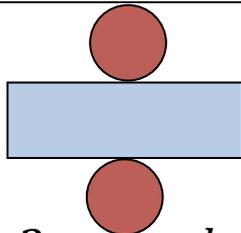
$$M = 2 \cdot r \cdot \pi \cdot h$$

Raumdiagonale:



$$d_R = \sqrt{d^2 + h^2}$$

Oberfläche:



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

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

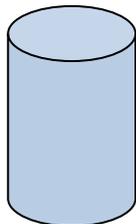
$$O = 2 \cdot r \cdot \pi \cdot (r + h)$$

Oberfläche – Umkehraufgaben:

$$h = \frac{O - 2 \cdot r^2 \cdot \pi}{2 \cdot r \cdot \pi}$$

$$r = -\left(\frac{h}{2}\right) + \sqrt{\frac{h^2}{4} + \frac{O}{2 \cdot \pi}}$$

Volumen:



$$V = G \cdot h$$

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

Volumen – Umkehraufgaben:

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

$$r = \sqrt{\frac{V}{h \cdot \pi}}$$