

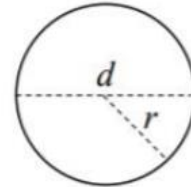
## Formelsamling Geometri åk 8

pi =  $\pi$  förhållandet mellan cirkelns omkrets och diameter

$$\frac{\text{cirkelns omkrets}}{\text{cirkelns diameter}} = \pi \approx 3,14$$

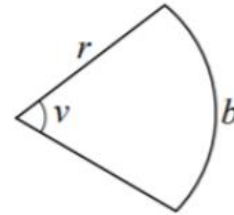
**Cirkel**

$$\begin{aligned} \text{area} &= \pi \cdot r^2 \\ \text{omkrets} &= \pi \cdot d = 2 \cdot \pi \cdot r \end{aligned}$$



**Cirkelsektor**

$$\begin{aligned} \text{bågen } b &= \frac{v}{360} \cdot 2 \cdot \pi \cdot r \\ \text{area} &= \frac{v}{360} \cdot \pi \cdot r^2 = \frac{b \cdot r}{2} \end{aligned}$$

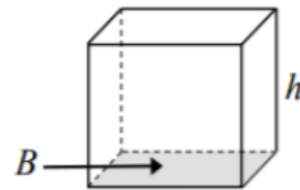


**Begränsningsyta/area** = den sammanlagda ytan av en kropp.

**Mantelyta/area** = storleken på den böjda ytan av en cylinder eller kon.

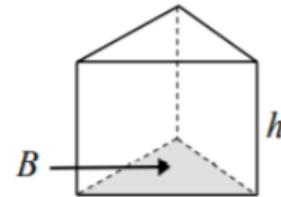
**Rätblock**

$$\text{volym} = B \cdot h$$



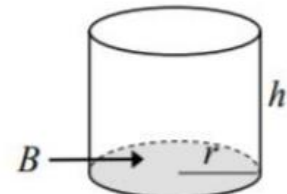
**Prisma**

$$\text{volym} = B \cdot h$$



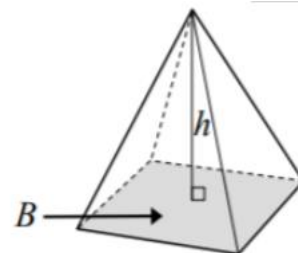
**Cylinder**

$$\begin{aligned} \text{Rak cirkulär cylinder} \\ \text{volym} &= B \cdot h \\ \text{mantelarea} &= 2 \cdot \pi \cdot r \cdot h \end{aligned}$$



**Pyramid**

$$\text{volym} = \frac{B \cdot h}{3}$$

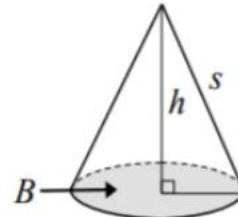


**Kon**

*Rak cirkulär kon*

$$\text{volym} = \frac{B \cdot h}{3}$$

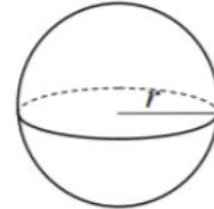
$$\text{mantelarea} = \pi \cdot r \cdot s$$



**Klot**

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

$$\text{area} = 4 \cdot \pi \cdot r^2$$



Volymenheter:

Litersystemet

liter	dl	cl	ml
1	10	100	1 000
0,1	1	10	100
0,01	0,1	1	10
0,001	0,01	0,1	1

Metersystemet

m <sup>3</sup>	dm <sup>3</sup> = liter	cm <sup>3</sup> = ml
1	1 000	1 000 000
0,001	1	1 000
0,000 001	0,001	1

Så här kan man tänka vid omvandling av

mätetal mellan volymenheter:

