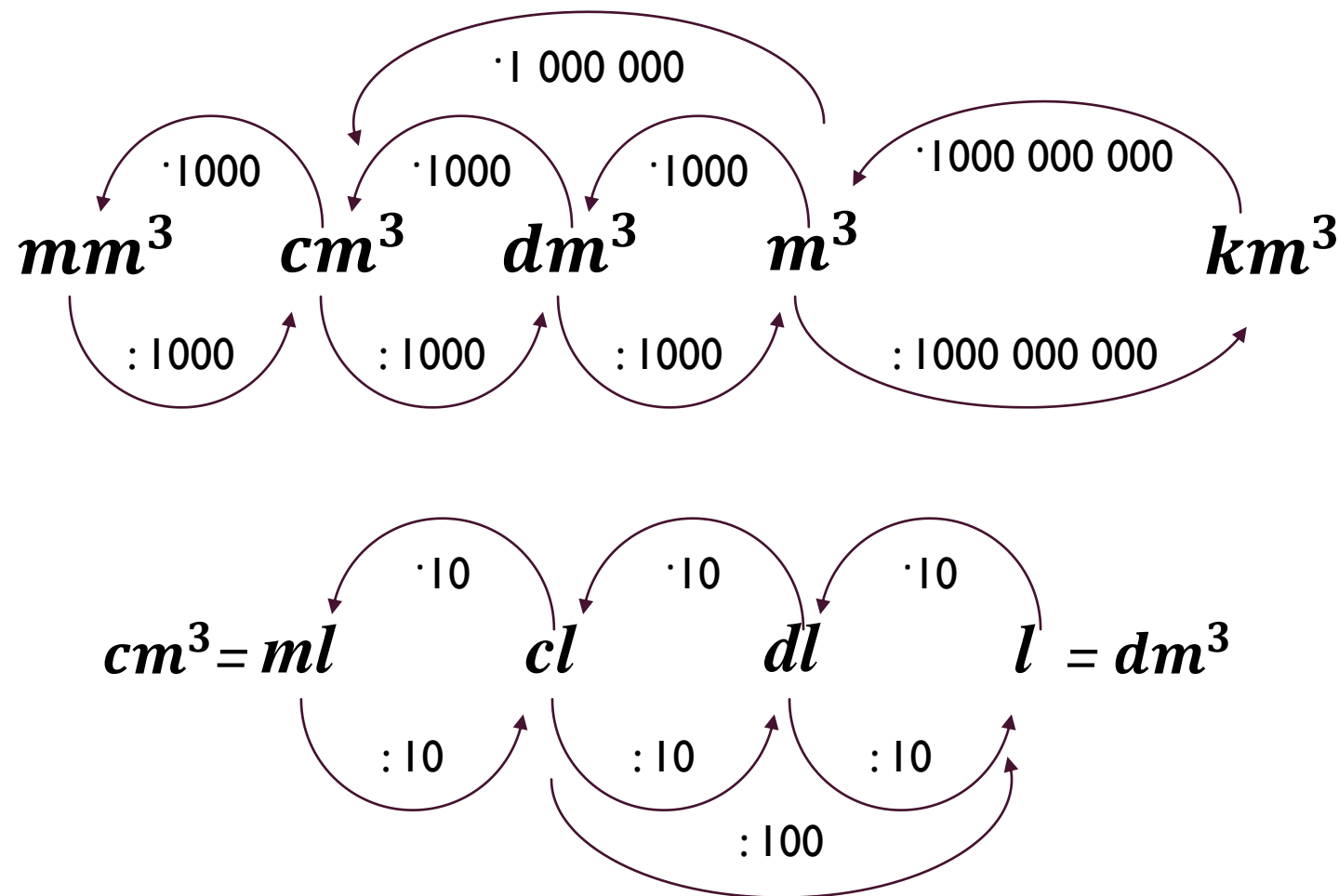


MERENJE ZAPREMINE

Goran Ivković, profesor fizike



MERENJE ZAPREMINE



Oznaka za zapreminu je V ,
 a merna jedinica
 $mm^3, cm^3, dm^3, m^3, km^3,$
 $ml, cl, dl, l, hl.$

$$1hl = 100l = 100 dm^3$$

Prebaci sledeće merne jedinice.

$$250 \text{ cm}^3 \rightarrow \text{dm}^3$$

$$13 \text{ m}^3 \rightarrow \text{cm}^3$$

$$360 \text{ cl} \rightarrow \text{l}$$

$$500 \text{ dl} \rightarrow \text{m}^3$$

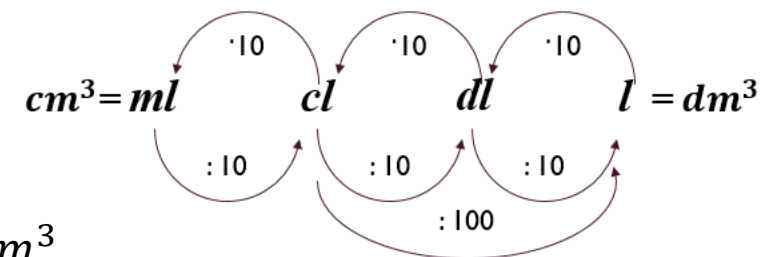
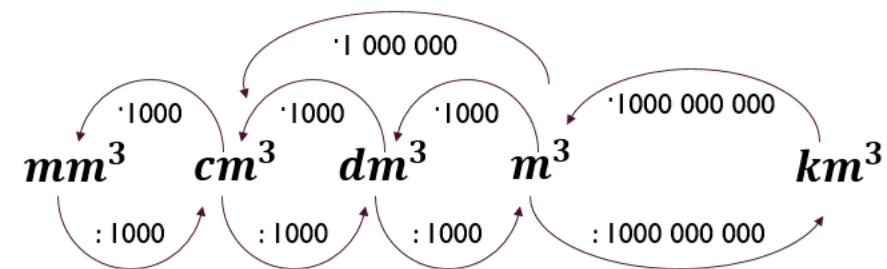
$$250 \text{ cm}^3 = 250 : 1\,000 \text{ dm}^3 = 0,25 \text{ dm}^3$$

$$13 \text{ m}^3 = 13 \cdot 1\,000\,000 \text{ cm}^3 = 13\,000\,000 \text{ cm}^3$$

$$360 \text{ cl} = 360 : 100 \text{ l} = 3,6 \text{ l}$$

$$500 \text{ dl} = 500 : 10 \text{ l} = 50 \text{ l} = 50 \text{ dm}^3$$

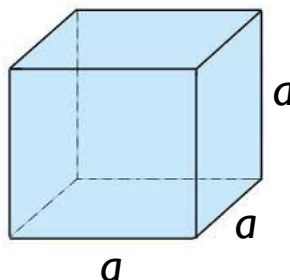
$$50 \text{ dm}^3 = 50 : 1000 \text{ m}^3 = 0,05 \text{ m}^3$$



MERENJE ZAPREMINE

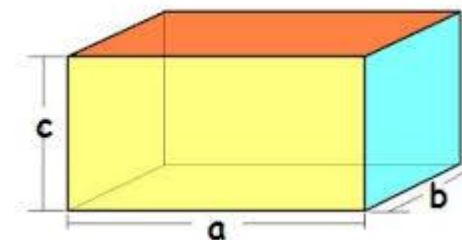
Određivanje zapremine tela pravilnog geometrijskog oblika svodi se na merenje dužine i primene odgovarajućih obrazaca.

KOCKA



Zapremina kocke
 $V = a \cdot a \cdot a$

KVADAR



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

MERENJE ZAPREMINE

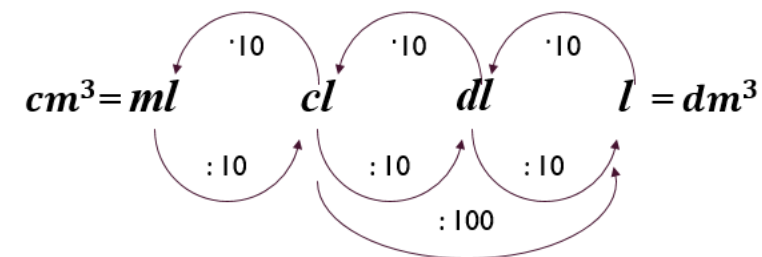
Odredi zapremini kocke ivice 6cm. Zapreminu izrazi u litrima i mililitrima.

$$a = 6\text{cm}$$

$$V = a \cdot a \cdot a$$

$$V = 6\text{cm} \cdot 6\text{cm} \cdot 6\text{cm}$$

$$V = 216\text{ cm}^3$$



$$216\text{ cm}^3 = 216\text{ ml}$$

$$216\text{ ml} = 216 : 1000\text{ l} = 0,216\text{ l}$$

MERENJE ZAPREMINE

Odredi zapremini kvadra širine 5dm, dužine 2dm i visine 6dm. Zapreminu izrazi u litrima i mililitrima.

$$a = 5dm$$

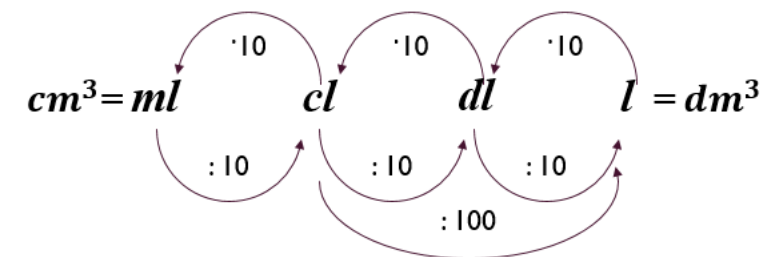
$$b = 2dm$$

$$c = 6dm$$

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

$$V = 5dm \cdot 2dm \cdot 6dm$$

$$V = 60 dm^3$$

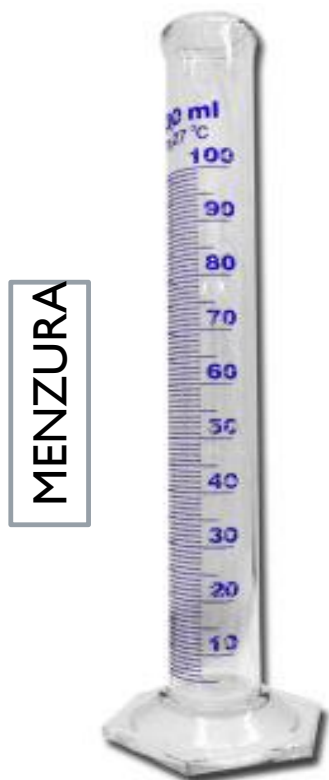


$$60 dm^3 = 60l$$

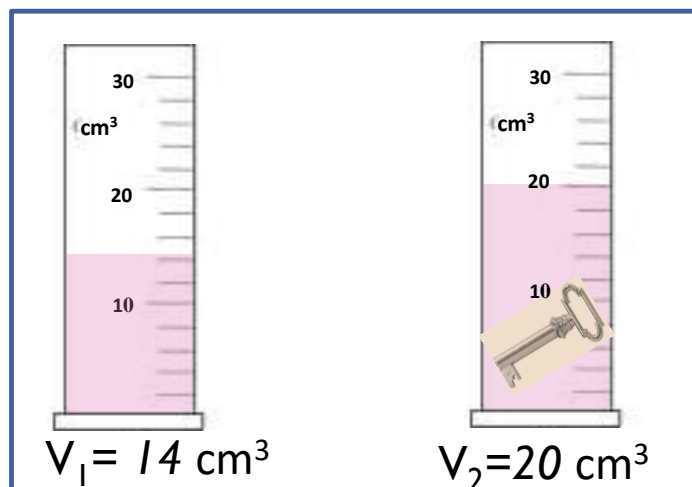
$$60l = 60 \cdot 1000 ml = 60\,000 ml$$

MERENJE ZAPREMINE

Zapremina tečnosti se direktno meri menzutom. Menzura je cilindrični sud na čijem zidu je skala najčešće u cm^3 , odnosno ml.



Zapremina tela nepravilnog oblika određuje se pomoću menzure i tečnosti u koju to telo tone.



V_1 - Zapremina tečnosti

V_2 - Zapremina tečnosti sa telom nepravilnog oblika

V - Zapremina tela nepravilnog oblika

$$V = V_2 - V_1 = 20 \text{ cm}^3 - 14 \text{ cm}^3 = 6 \text{ cm}^3$$