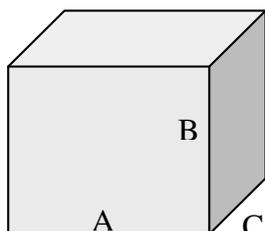
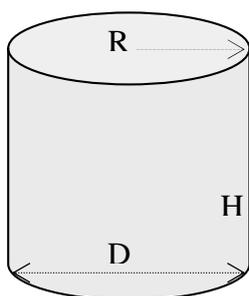


## Calculation of surface areas.



Surface area rectangular square =  $A \times B$ .

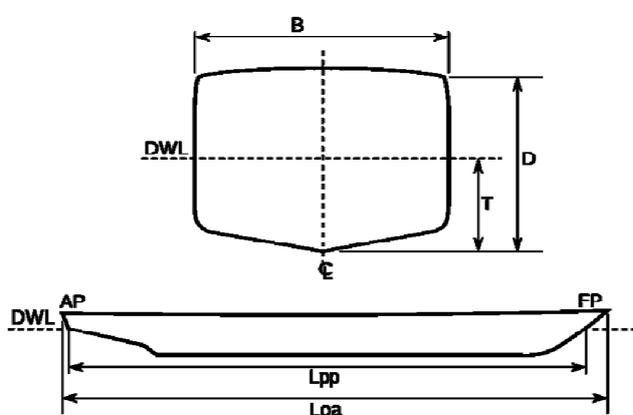
Total surface area cube =  $2 \times (A \times B) + 2 \times (A \times C) + 2 \times (B \times C)$ .



Surface area Top or Bottom =  $3,14 \times R^2$

Surface area Shell =  $3,14 \times D \times H$ .

## Estimation of vessel surface areas.



B = Breadth extreme

D = Depth

T = Draft

Lpp = length between perpendiculars

Loa = length over all

**Bottom (incl. Boottop)**

**Area =  $((2 \times T) + B) \times Lbp \times P$**

Where T = draft maximum

B = breadth extreme

Lbp = length between perpendiculars

P = 0,90 for big tankers

P = 0,85 for bulk carriers

P = 0,70 - 0,75 for dry cargo ships

**Topsides**

$$\text{Area} = 2 \times H \times (\text{Loa} + 0,5 \times B)$$

Where H = height of topsides (D - T)

B = breadth extreme

Loa = length over all

**Weatherdecks (incl.  
Upper top of deck houses)**

$$A = \text{Loa} \times B \times N$$

(Accuracy depends on choice of N which indicates the actual area in relation to its circumscribed Rectangular)

Where Loa = length over all

B = breadth extreme

N = 0,91 for big tankers and bulk carriers

N = 0,88 for cargo vessels

N = 0,84 for coasters etc.