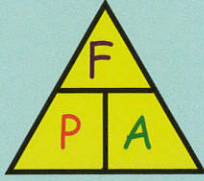




# Pressure



A box exerts a force of 270N on the floor.  
The pressure on the floor is 45 newtons/m<sup>2</sup>  
Calculate the area of the box that is in contact with the floor.

$$\text{Pressure} = \frac{\text{Force}}{\text{Area}}$$

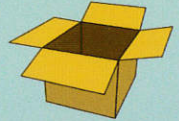
$$\text{Force} = \text{Pressure} \times \text{Area}$$

$$\text{Area} = \frac{\text{Force}}{\text{Pressure}}$$

$$\text{Area} = \frac{\text{Force}}{\text{Pressure}}$$

$$= \frac{270}{45}$$

$$= 6\text{m}^2$$



It can be useful to know that  $1\text{m}^2 = 10,000\text{cm}^2$