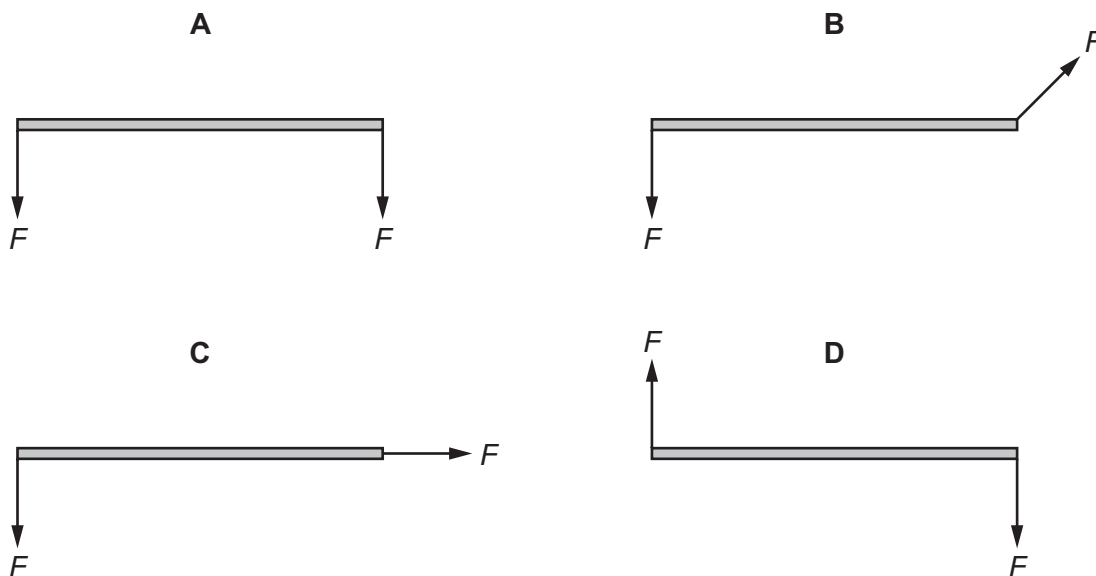


- 11 A rectangular block of lead of density $1.13 \times 10^4 \text{ kg m}^{-3}$ has sides of length 12.0 cm, 15.0 cm and 10.0 cm.

What is the maximum pressure the block can exert when resting on a table?

- A 1.13 kPa B 1.70 kPa C 11.1 kPa D 16.6 kPa

- 12 Which diagram shows a couple formed by two forces, each of magnitude F , acting on a rod?



- 13 Full-fat milk is made up of fat-free milk mixed with fat.

A volume of $1.000 \times 10^{-3} \text{ m}^3$ of full-fat milk has a mass of 1.035 kg. It contains 4.00% fat by volume.

The density of fat-free milk is $1.040 \times 10^3 \text{ kg m}^{-3}$.

What is the density of fat?

- A $1.25 \times 10^2 \text{ kg m}^{-3}$
B $9.15 \times 10^2 \text{ kg m}^{-3}$
C $9.28 \times 10^2 \text{ kg m}^{-3}$
D $1.16 \times 10^3 \text{ kg m}^{-3}$