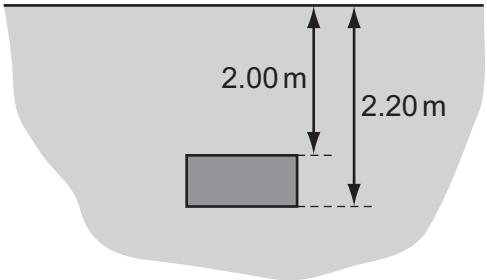
23 The diagram shows a rectangular block of mass 8.2 kg immersed in sea water of density $1.10 \times 10^3\,\text{kg m}^{-3}$.



What is the difference in pressure between the top and bottom surfaces of the block?

A $2.2 \times 10^2\,\text{Pa}$

B $2.2 \times 10^3\,\text{Pa}$

C $1.8 \times 10^4\,\text{Pa}$

D $2.3 \times 10^4\,\text{Pa}$

Space for working