8 A large concrete block has dimensions 3.00 m × 4.00 m × 5.00 m. It is completely submerged in sea water of density 1020 kg m^{-3} and needs to be lifted out of the water.

What is the range of minimum forces required to lift the block from when it is completely submerged to when it is clear of the water? (Density of concrete = 2300 kg m^{-3}.)

A 6.12×10^4 N to 1.38×10^5 N

B 7.68×10^4 N to 1.38×10^5 N

C 6.00×10^5 N to 1.35×10^6 N

D 7.53×10^5 N to 1.35×10^6 N