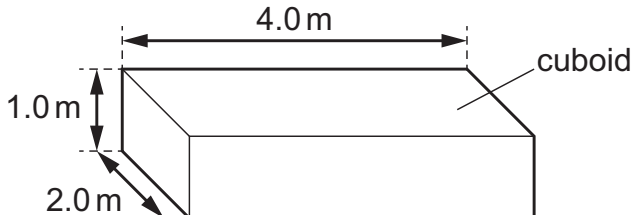
12 A solid metal cuboid of density 2700 kg m^{-3} has sides of lengths 1.0 m, 2.0 m and 4.0 m.



The cuboid can be placed on a horizontal surface so that it rests on any one of its six faces.

What is the largest pressure that the cuboid can exert on the surface due to its weight when it rests on one of its six faces?

A 11 kPa **B** 26 kPa **C** 53 kPa **D** 110 kPa