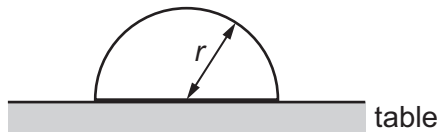


- 13** An object shaped as a hemisphere rests with its flat surface on a table. The object has radius  $r$  and density  $\rho$ .



The volume of a sphere is  $\frac{4}{3}\pi r^3$ .

Which average pressure does the object exert on the table?

**A**  $\frac{1}{3}\rho r^2$

**B**  $\frac{1}{3}\rho r^2 g$

**C**  $\frac{2}{3}\rho r$

**D**  $\frac{2}{3}\rho r g$