

- 5** A stream of water from a hose travels horizontally at speed v . The stream strikes a brick wall and falls vertically down it without splashing.

The stream of water is a cylinder of cross-sectional area A . The water has density ρ .

Which expression is the force exerted on the wall by the water?

A $\frac{1}{2}A\rho v^2$

B $A\rho v^2$

C $\frac{3}{2}A\rho v^2$

D $2A\rho v^2$

- 6** Two train carriages each of mass 5000 kg roll toward one another on a horizontal frictionless