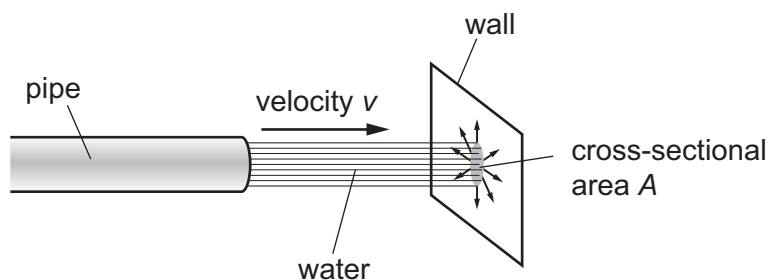


- 9 Water flows out of a pipe and hits a wall.



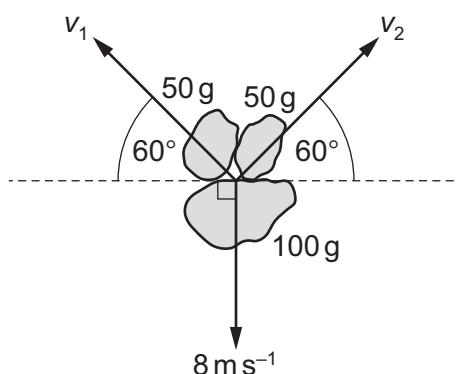
When the jet of water hits the wall, it has horizontal velocity  $v$  and cross-sectional area  $A$ .

The density of the water is  $\rho$ . The water does not rebound from the wall.

What is the force exerted on the wall by the water?

- A  $\frac{\rho v}{A}$       B  $\frac{\rho v^2}{A}$       C  $\rho Av$       D  $\rho Av^2$

- 10 A stationary firework explodes into three pieces. The masses and the velocities of the three pieces immediately after the explosion are shown.



What are speed  $v_1$  and speed  $v_2$ ?

	$v_1/\text{ms}^{-1}$	$v_2/\text{ms}^{-1}$
A	4.0	4.0
B	9.2	9.2
C	14	14
D	16	16