

**6**

In testing the armour of a tank, a machine gun fires 300 bullets in one minute normal to the body of the tank. The mass of each bullet is 2 g and the speed is  $300 \text{ m s}^{-1}$ .

If the bullet rebounds horizontally with no change in speed, what is the average force exerted by the stream of bullets on the body of the tank?

Assume that the rebound bullets do not collide with the incoming bullets.

**A**

3.0 N

**B**

6.0 N

**C**

12 N

**D**

180 N