

- 5 A gas molecule of mass  $m$  travelling at speed  $v$  strikes the side of a gas cylinder at an angle  $\theta$ . The collision takes time  $t$ .



What is the average force acting on the side of the gas cylinder?

- ☐ A  $\frac{mv}{t}$
- ☐ B  $\frac{2mv}{t}$
- ☐ C  $\frac{mv \sin \theta}{t}$
- ☐ D  $\frac{2mv \sin \theta}{t}$

(Total for Question 5 = 1 mark)