7 A cyclist in still air pedals as hard as she can. She reaches a maximum speed. However, after a certain time her maximum speed increases.

What could be a possible cause for this?

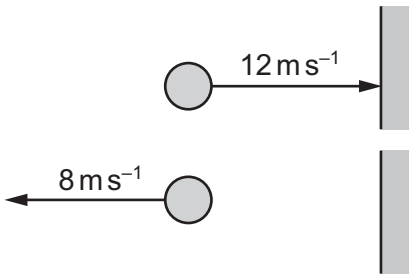
A She cycles into a wind.

B She cycles over rougher ground.

C She sits more upright on the bicycle.

D She starts to travel downhill.

8 A ball of mass 0.5 kg hits a vertical wall at a speed of $12\,m\,s^{-1}$. It bounces back along its original path with a speed of $8\,m\,s^{-1}$. The collision lasts for 0.10 s.



What is the average force on the ball due to the collision?

A 0.2 N **B** 1 N **C** 20 N **D** 100 N