

13 A bus on a horizontal road travels round a corner. The corner is an arc of a circle. When the road is dry, the maximum safe speed is 16 m s^{-1} .

When the road is wet, the maximum frictional force between the surface of the road and the wheels of the bus is halved.

What is the maximum safe speed of the bus for it to travel round the corner when the road is wet?

A $\frac{16}{4}$

B $\frac{16}{(2\sqrt{2})}$

C $\frac{16}{2}$

D $\frac{16}{\sqrt{2}}$