14 When a rifle is fired, the bullet experiences a constant pressure on its base whilst in the barrel of the rifle. The barrel has a cross-sectional area of $4.5 \times 10^{-5}\,m^2$.

The bullet has a mass of 0.050 kg. The pressure on the base of the bullet in the barrel is $1.7 \times 10^8\,Pa$.

The bullet leaves the barrel after 3.3 ms.

What is the speed of the bullet as it leaves the barrel?

A 250 m s^{-1} **B** 350 m s^{-1} **C** 500 m s^{-1} **D** 1000 m s^{-1}