

- 2** A metal ball is dropped from rest over a bed of sand. It hits the sand bed one second later and makes an impression of maximum depth of 8.0 mm in the sand.

Assuming air resistance is negligible, what is the average deceleration of the ball on hitting the sand?

A $6.0 \times 10^2 \text{ m s}^{-2}$

B $1.2 \times 10^3 \text{ m s}^{-2}$

C $6.0 \times 10^3 \text{ m s}^{-2}$

D $1.2 \times 10^4 \text{ m s}^{-2}$