

- 19** A twig from a tree drops from a 200 m high cliff on to a beach below. During its fall, 40% of the twig's energy is converted into thermal energy.

What is the speed with which the twig hits the beach?

A 35 m s^{-1}

B 40 m s^{-1}

C 49 m s^{-1}

D 63 m s^{-1}

- 20** Pollen grains are suspended in a liquid and are illuminated strongly. When observed under a