

19 The speed of a car increases from 10 ms^{-1} to 15 ms^{-1} and its kinetic energy increases by E_1 .

Later, the speed of the car increases from 15 ms^{-1} to 25 ms^{-1} and its kinetic energy increases by E_2 .

What is the ratio $\frac{E_2}{E_1}$?

A 1.6

B 2.6

C 3.2

D 4.0

20 A car travels at a constant speed of 25 m s^{-1} up a slope. The wheels driven by the engine exert a