

8 A goods train passes through a station at a steady speed of  $10\text{ m s}^{-1}$ . An express train is at rest at the station. The express train leaves the station with a uniform acceleration of  $0.5\text{ m s}^{-2}$  just as the goods train goes past. Both trains move in the same direction on straight, parallel tracks.

How much time passes before the express train overtakes the goods train?

A 6s

B 10s

C 20s

D 40s

9 A car is stationary at traffic lights. When the traffic lights go green, the driver presses down