

- 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** 6 s                      **B** 10 s                      **C** 20 s                      **D** 40 s

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