

**2**

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**

6.0 s

**B**

10 s

**C**

20 s

**D**

40 s