

2

A goods train passes through a station at a steady speed of 10 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 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