

- 5** A motorcyclist, on a straight road, accelerates from rest at  $2.0\text{ m s}^{-2}$  until he reaches and maintains a steady speed of  $40\text{ m s}^{-1}$ .

How much time will elapse before the motorcyclist covers a distance of  $1.0\text{ km}$  from his starting point?

**A** 20 s

**B** 25 s

**C** 35 s

**D** 50 s