

**38** An artificial satellite orbits planet X at a distance  $r = 7.0 \times 10^6$  m from the centre of planet X.

The average orbital speed  $v$  of the satellite is 3500 m/s.

What is the orbital period?

- A** 21 minutes
- B** 52 minutes
- C** 1 hour and 45 minutes
- D** 3 hours and 29 minutes