6   An electric train consists of two carriages, each of mass 1.0×10^5 kg. The motor, which is in the front carriage, provides a constant traction force of 1.2×10^5 N. Assume that all resistive forces are negligible.

The train accelerates from rest. After 20 s, the coupling between the two carriages breaks.

How far apart are the carriages after another 20 s?

A   120 m   **B**   240 m   **C**   360 m   **D**   480 m