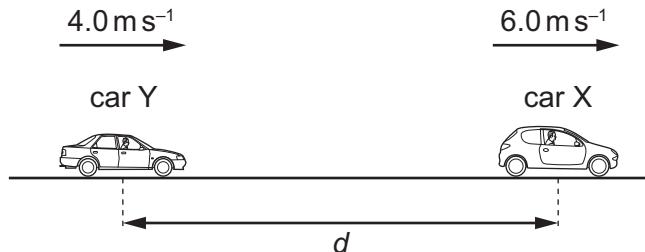


- 7 Two cars X and Y are travelling along the same straight road. Car X is travelling at a constant speed of  $6.0\text{ ms}^{-1}$ . Car Y has a constant acceleration of  $0.50\text{ ms}^{-2}$ .

At the instant shown, car X is a distance  $d$  ahead of car Y. Car Y is travelling at a speed of  $4.0\text{ ms}^{-1}$ .



Car Y is level with car X after a time of 20 seconds.

What is the distance  $d$ ?

- A** 40 m      **B** 60 m      **C** 180 m      **D** 300 m