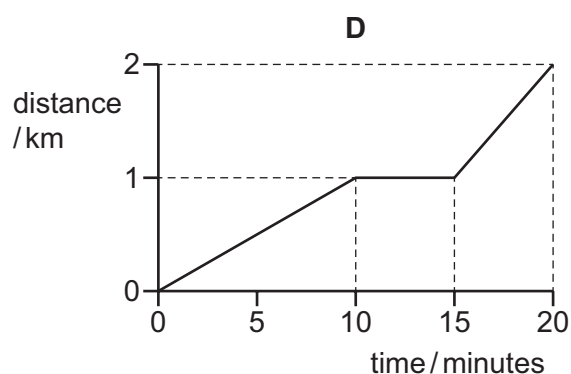
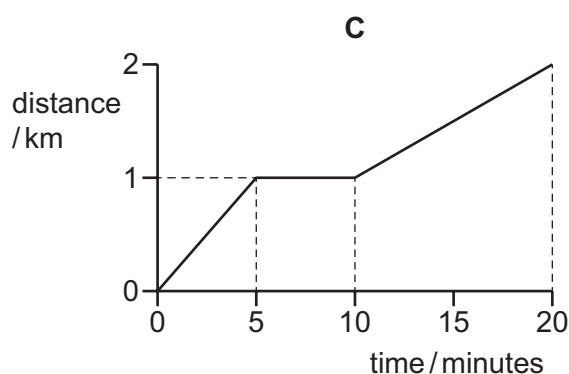
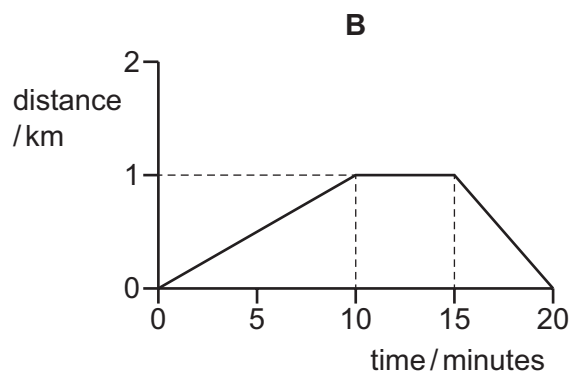
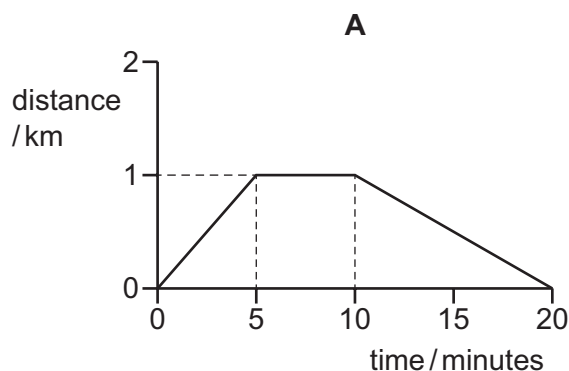


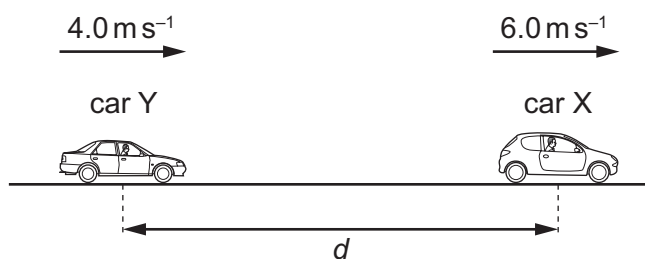
- 6 A student cycles uphill from home to a shop, taking 10 minutes. The student then spends 5 minutes in the shop, before cycling home downhill at twice the initial speed.

Which graph could show the variation with time of the distance travelled by the cyclist?



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