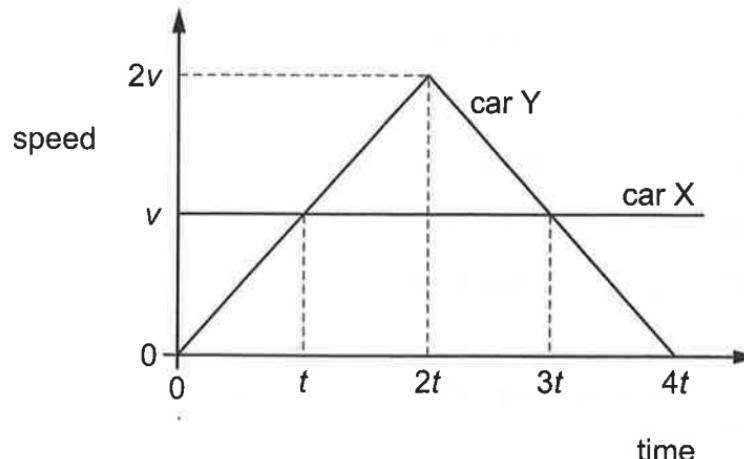


- 6 Car X travels at a constant speed v along a motorway. At a time 0, it passes car Y which immediately accelerates uniformly from rest to speed $2v$. Car Y then decelerates uniformly to rest.



Which statement is correct?

- A At time $2t$, car Y overtakes car X.
- B At time $3t$, car X overtakes car Y.
- C At time $2t$, car Y has travelled twice as far as car X.
- D At time $4t$, car X has travelled twice as far as car Y.

- 7 A block accelerating down a slope has three forces acting on it.