

- 9** There are three checkpoints,  $A$ ,  $B$  and  $C$ , in that order, on a straight horizontal road. A car travels along the road, in the direction from  $A$  to  $C$ , with constant acceleration. The car takes 20 s to travel from  $B$  to  $C$ . The speed of the car at  $B$  is  $14 \text{ m s}^{-1}$  and the speed of the car at  $C$  is  $18 \text{ m s}^{-1}$ .

**(a)** Find the acceleration of the car. **[1]**

It is given that the distance between  $A$  and  $B$  is 330 m.

**(b)** Determine the speed of the car at  $A$ . **[2]**