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2. A car moves along a straight horizontal road with constant acceleration $a \text{ ms}^{-2}$ where $a > 0$

The car is modelled as a particle.

At time $t = 0$, the car passes point A and is moving with speed $u \text{ m s}^{-1}$

In the first three seconds after passing A the car travels 20 m.

In the fourth second after passing A the car travels 10m.

The speed of the car as it passes point *B* is 20 m s^{-1}

Find the time taken for the car to travel from A to B .

(8)

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