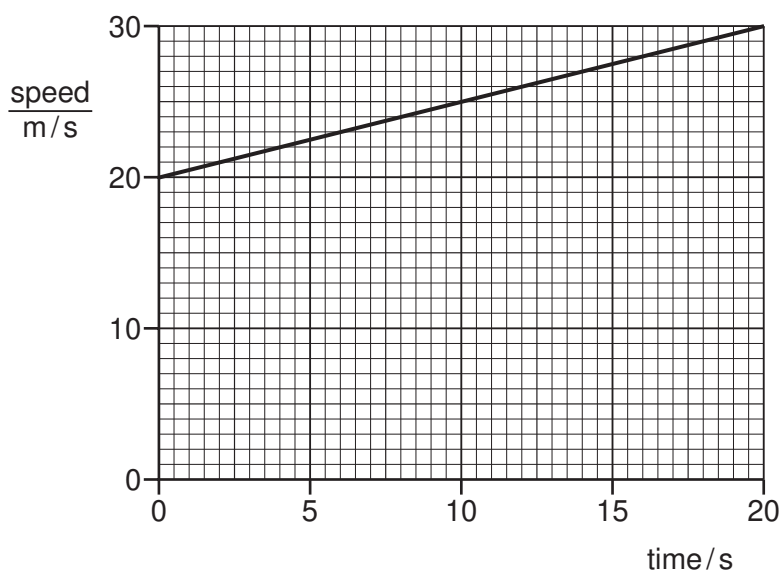


- 3 A car travels along a horizontal road in a straight line. The driver presses the accelerator to increase the speed of the car.

The speed-time graph for the car is shown.



What is the acceleration of the car?

- A**  $0.50 \text{ m/s}^2$       **B**  $1.00 \text{ m/s}^2$       **C**  $1.50 \text{ m/s}^2$       **D**  $2.00 \text{ m/s}^2$
- 4 A spaceship approaches the Earth from deep space. Near the Earth, a force on the spaceship causes it to have weight. This causes it to change its speed and direction.

Which type of force causes the spaceship's weight, and which property of the spaceship resists its change in speed and direction?

|          | force that causes weight | property that resists change in speed and direction |
|----------|--------------------------|---|
| <b>A</b> | gravitational            | mass  |
| <b>B</b> | gravitational            | volume  |
| <b>C</b> | magnetic                 | mass  |
| <b>D</b> | magnetic                 | volume  |