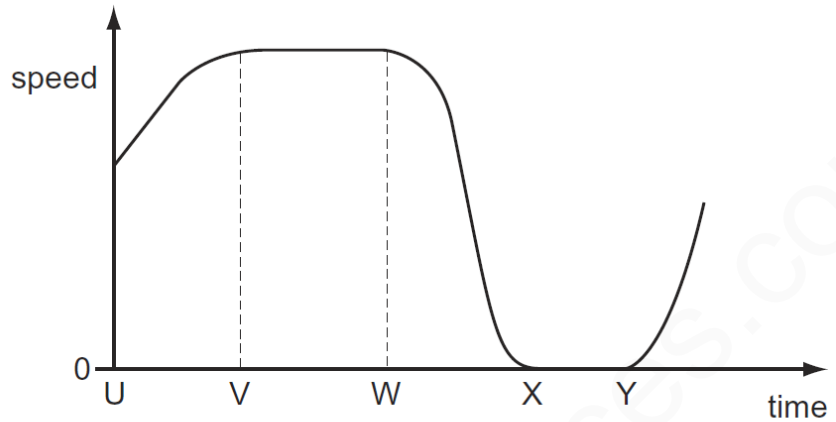


## SPEE-TIME-SET-4-QP

1

The graph shows how the speed of a car changes with time.



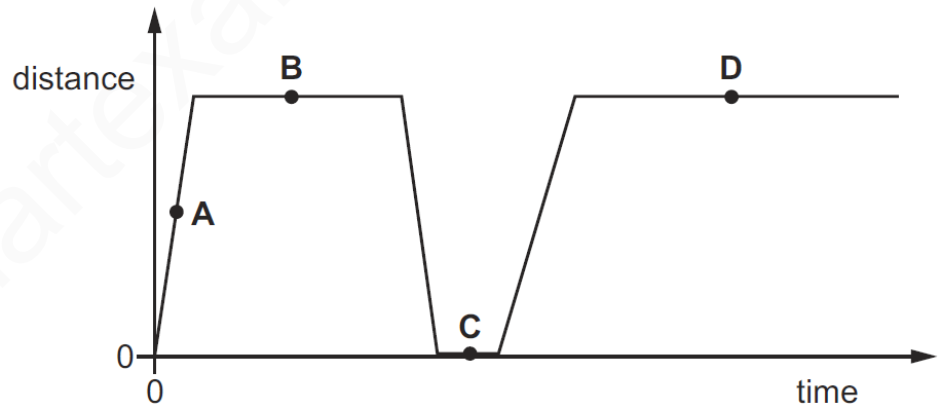
Between which two times is the car stationary?

- A** U and V      **B** V and W      **C** W and X      **D** X and Y

2

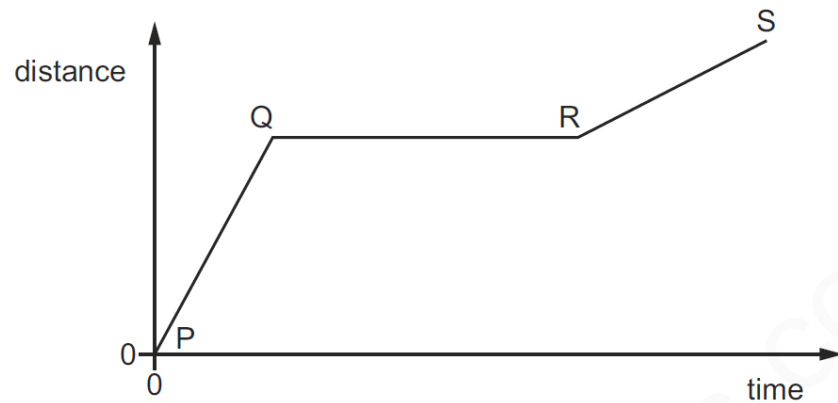
The diagram shows the distance-time graph for a car.

At which labelled point is the car moving with constant speed?



3

The graph shows how the distance travelled by a vehicle changes with time.



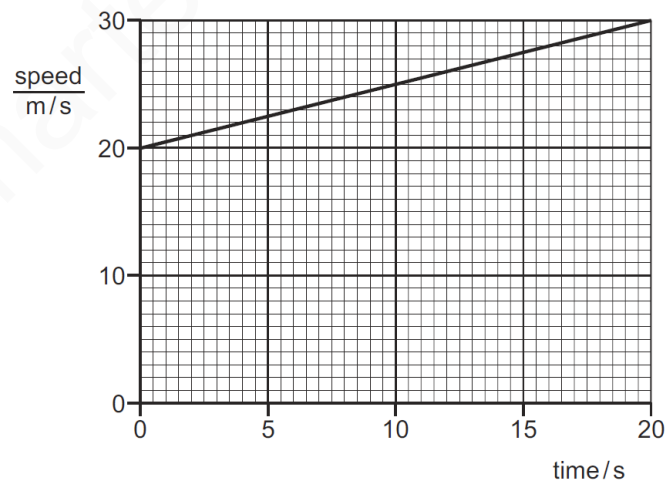
Which row describes the speed of the vehicle in each section of the graph?

	P to Q	Q to R	R to S
<b>A</b>	constant	zero	constant
<b>B</b>	constant	zero	decreasing
<b>C</b>	increasing	constant	decreasing
<b>D</b>	increasing	zero	constant

4

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.

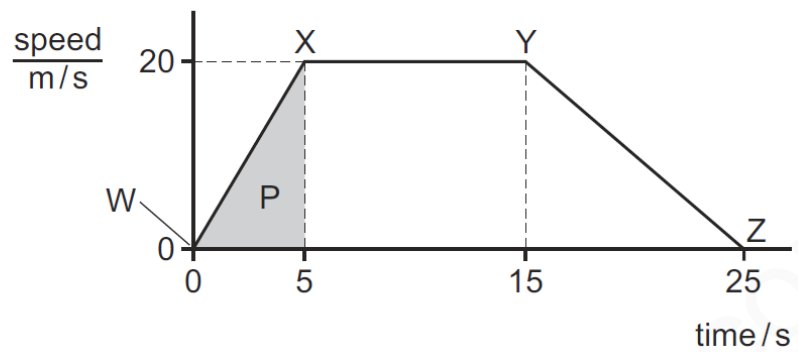


What is the acceleration of the car?

- A**  $0.50 \text{ m/s}^2$     **B**  $1.00 \text{ m/s}^2$     **C**  $1.50 \text{ m/s}^2$     **D**  $2.00 \text{ m/s}^2$

5

The speed-time graph for an object is shown.



Below are four statements about the acceleration of the object.

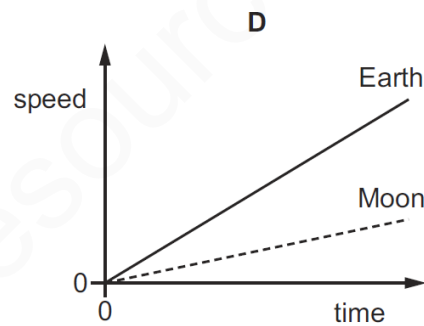
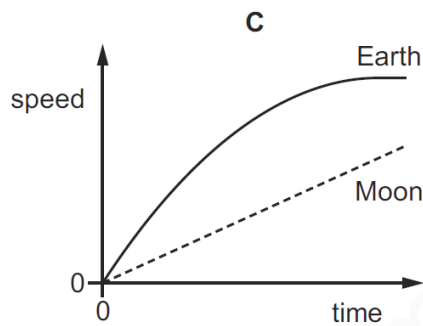
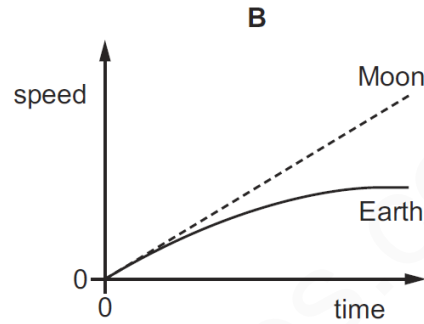
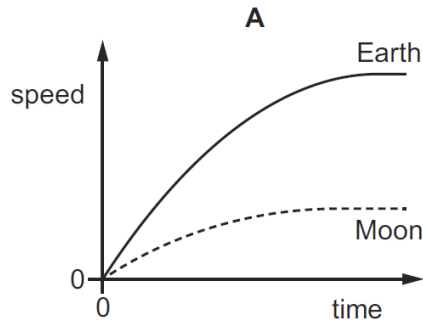
Which statement is correct?

- A** The acceleration in the first 5 s is given by area P.
- B** The acceleration increases between W and X.
- C** The acceleration is negative between Y and Z.
- D** The deceleration between Y and Z is  $(20 \div 25) \text{ m/s}^2$ .

6

The gravitational field strength on the Earth is greater than the gravitational field strength on the Moon. The Earth has an atmosphere, but the Moon does not.

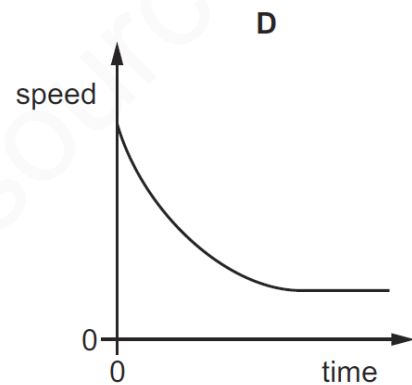
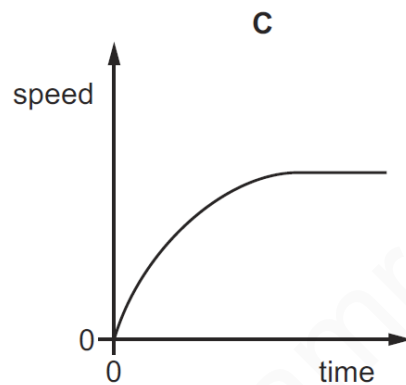
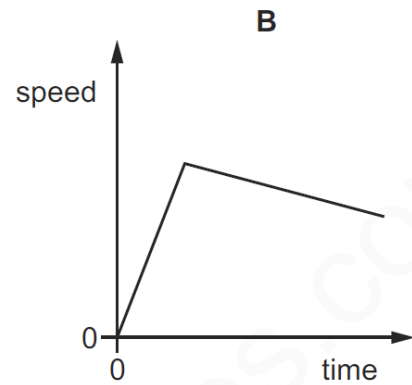
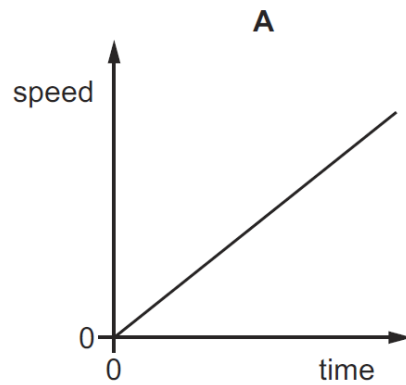
Which speed-time graph represents the motion of a light ball dropped from a great height near the surface of the Earth and near the surface of the Moon?



7

A small, light ball is dropped from the top of a tall building.

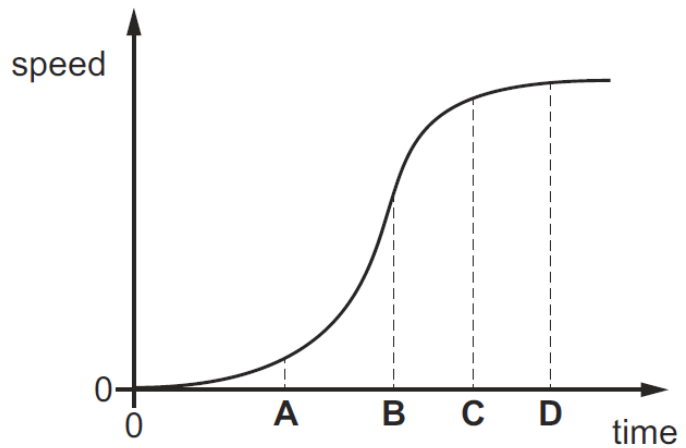
Which graph shows how the speed of the ball changes with time?



8

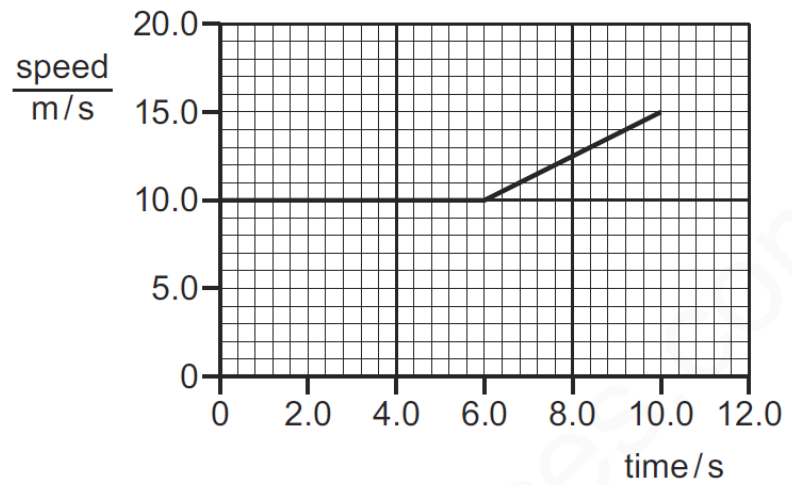
The speed-time graph shows the motion of a car.

At which time is its acceleration greatest?



9

The graph shows how the speed of a car varies during part of a journey.



What is the acceleration of the car between 6.0 s and 10.0 s?

- A**  $0.50 \text{ m/s}^2$       **B**  $0.80 \text{ m/s}^2$       **C**  $1.25 \text{ m/s}^2$       **D**  $1.50 \text{ m/s}^2$