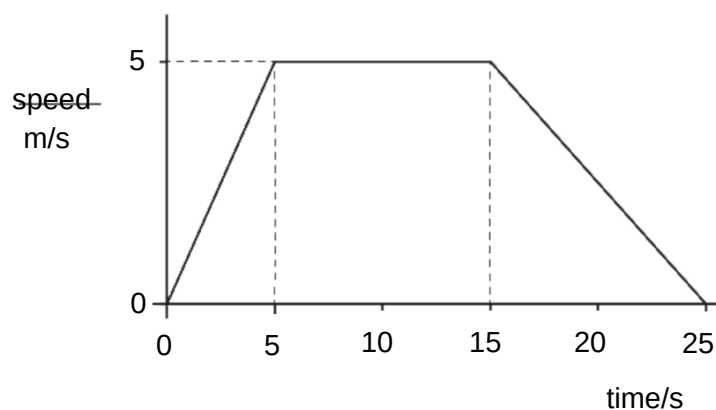


Question 1

The speed-time graph shows the motion of an object.



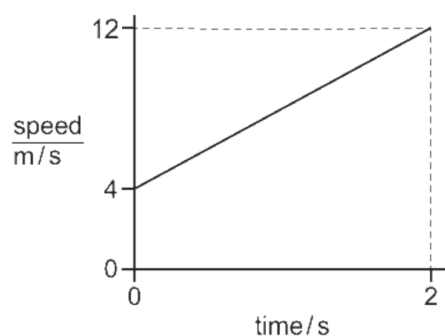
How far does the object travel at constant speed?

- A** 25m **B** 50 m **C** 75m **D** 125m

Question 2 Removed

Question 3

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

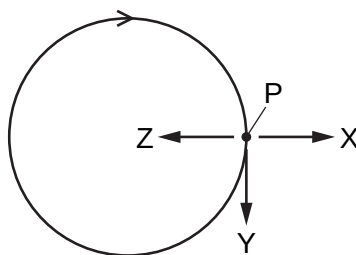


What is the acceleration of the car?

- A** 4.0m/s^2 **B** 6.0m/s^2 **C** 16m/s^2 **D** 24m/s^2

Question 4

An object moves at constant speed in the circular path shown.

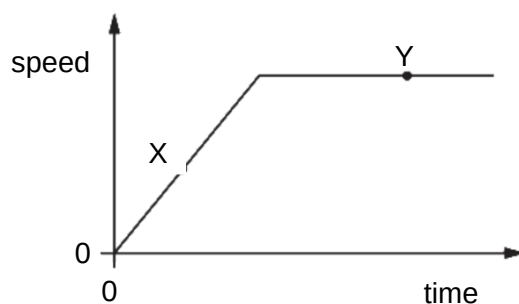


Which statement about the acceleration of the object when it is at point P is correct?

- A The acceleration is in the direction of arrow X.
- B The acceleration is in the direction of arrow Y.
- C The acceleration is in the direction of arrow Z.
- D The object is not accelerating.

Question 5

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



Which row describes the motion of the car at point X and at point Y?

	point X	point Y
A	at rest	moving with constant speed
B	moving with constant speed	at rest
C	moving with changing speed	at rest
D	moving with changing speed	moving with constant speed

Question 6

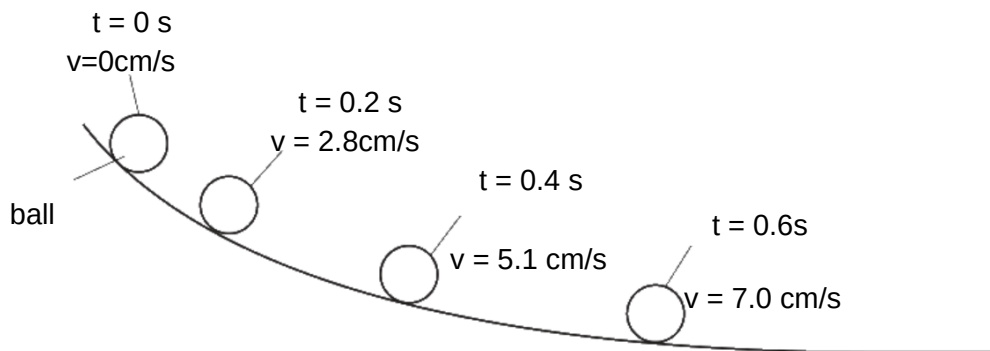
Which statement about acceleration is correct?

- A** It is related to the changing speed of an object.
- B** It is the distance an object travels in one second.
- C** It is the force acting on an object divided by the distance it travels in one second.
- D** It is the force acting on an object when it is near to the Earth.

Question 7

A student investigates the motion of a ball rolling down a slope.

The diagram shows the speed v of the ball at different times t .

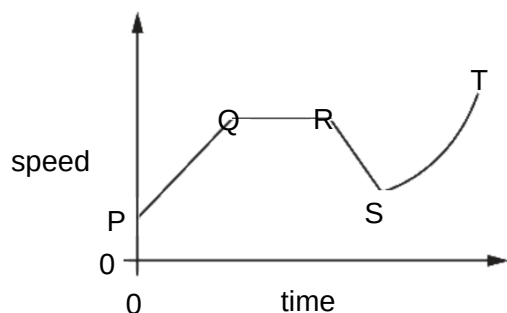


Which statement describes the motion of the ball?

- A** The acceleration is not constant.
- B** The acceleration is negative.
- C** The speed is decreasing.
- D** The velocity is constant.

Question 8

The diagram shows a speed-time graph for an object.



Which sections of the graph show the object moving with constant, non-zero acceleration?

- A** PQ, QR and RS
- B** PQ and RS only
- C** QR only
- D** ST only

Question 9

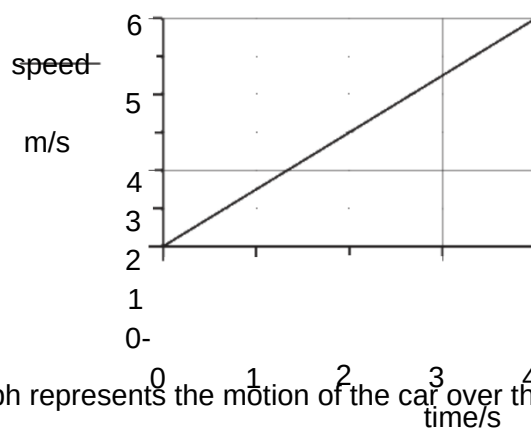
A woman of mass 50 kg has 81 J of kinetic energy.

What is her speed?

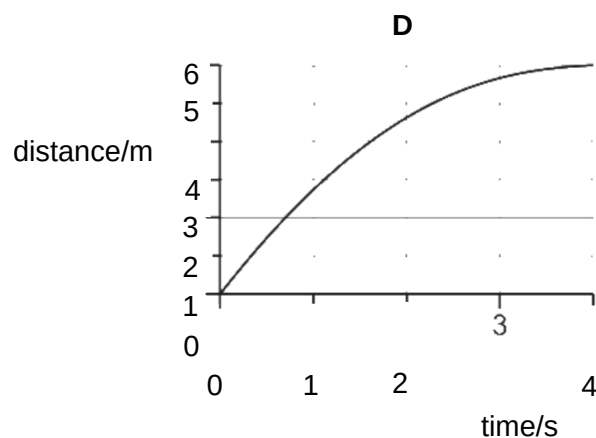
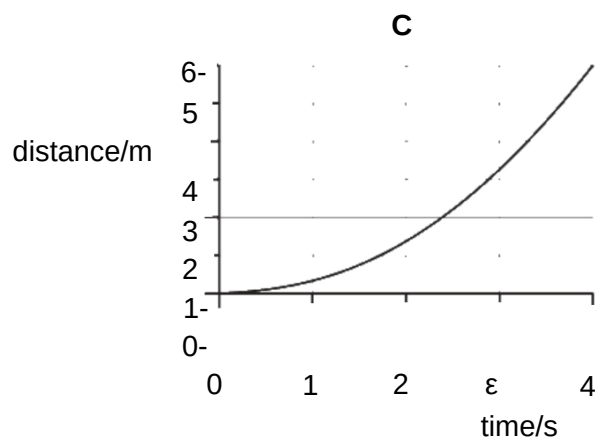
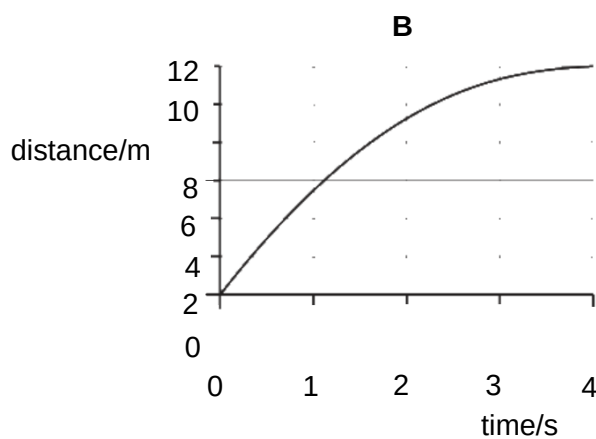
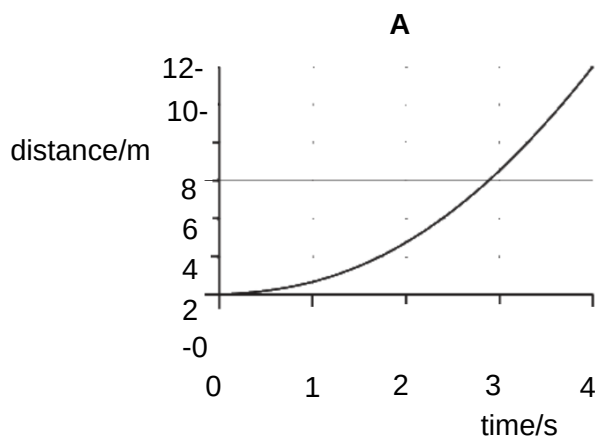
- A 1.3m/s B 1.6m/s **C** 1.8m/s D 3.2m/s

Question 10

The graph shows how the speed of a car varies with time at the start of a journey.



Which distance-time graph represents the motion of the car over the same time period?



Question 11

A car starts from rest.

The table shows the readings from its speedometer every 10 s.

time / s	0	10	20	30	40	50	60
<u>speed</u>	0	4	8	12	12	12	12

m/s

Which row describes the car's motion in the first 30 seconds and in the last 30 seconds?

	motion during first 30 s	motion during last 30 s
A	non-zero acceleration	at rest
B	zero acceleration	constant speed
C	zero acceleration	at rest
D	non-zero acceleration	constant speed