

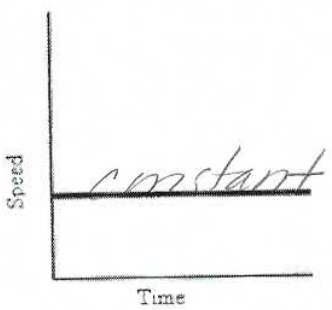
NOTES:

Interpreting Graphs Speed-Time Graphs

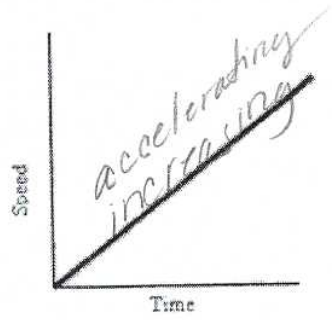
Created for you by Ms. Nhotsoubarh

Speed-Time Graphs look much like Distance-Time graph! Be sure to read the labels.

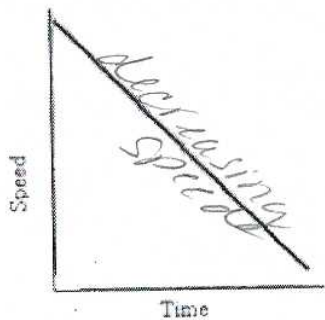
Time is plotted on the X-axis.
Speed or velocity is plotted on the Y-axis



A straight horizontal line on a speed-time graph means the speed is constant. This means the speed is not changing over time. How is this different from a distance-time graph? Horizontal line means stationary or at rest for distance and time graphs.



A positive slope represents an increasing speed. The moving object is accelerating



A negative slope represents a decreasing speed The moving object is decelerating.

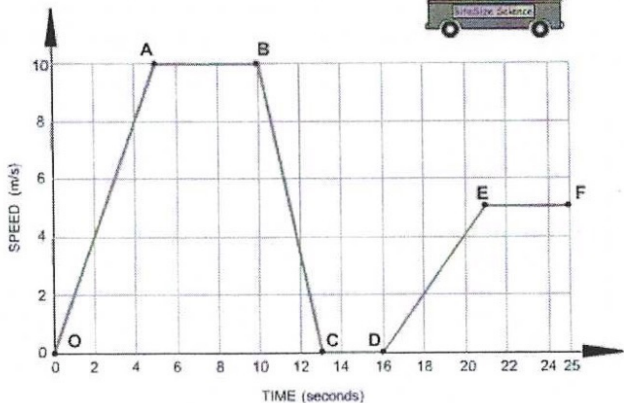
Summary:

- The steeper the line, the greater the acceleration
- A horizontal line means the object is moving at a constant speed
- A downward (negative) sloping line means the object is slowing down (decelerating)

Name: Key
Alg. 1 H - Date: May

Glue on page 37

The graph below shows how the speed of a bus changes during part of a journey.



Choose the correct words from the following list to describe the motion during each segment of the journey to fill in the blanks.

- accelerating
- decelerating
- constant speed
- at rest

1) Segment O-A The bus is accelerating. Its speed changes from 0 to 10 m/s in 5 seconds.

2) Segment A-B The bus is moving at a constant speed of 10m/s for 5 seconds.

3) Segment B-C The bus is decelerating. It is slowing down from 10 m/s to rest in 3 seconds.

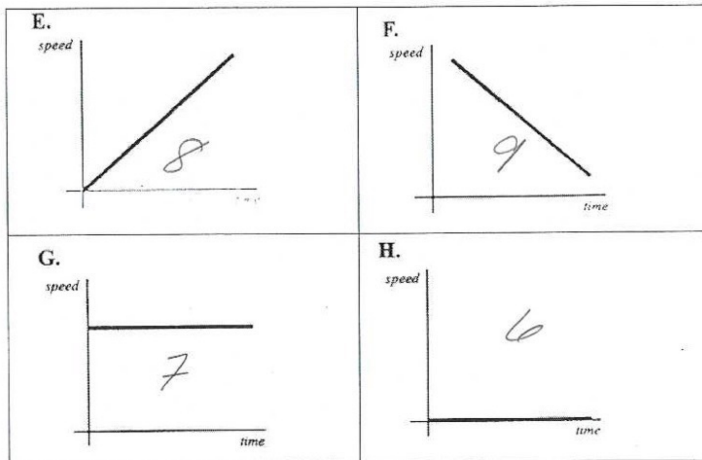
4) Segment C-D The bus is at rest. It has stopped.

5) Segment D-E The bus is accelerating. It is gradually increasing in speed.

The speed-time graphs below represent the motion of a car. Match the descriptions with the graphs. Explain your answers.

Descriptions:

- The car is stopped.
- The car is traveling at a constant speed.
- The car is accelerating.
- The car is slowing down.



Graph E matches description 8 because the positive slope represents an increase in speed

Graph F matches description 9 because the slope is negative representing a decrease in speed

Graph G matches description 7 because it is a horizontal line meaning constant

Graph H matches description 6 because it is at zero speed