

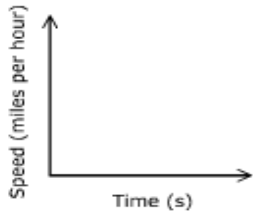
Objective 71

WP: Determine the graph that models a function given in a description

PROBLEM

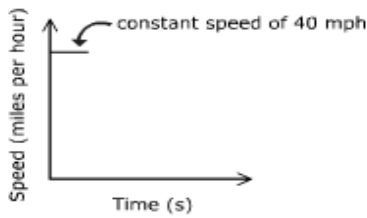
1 OF 2

A car moving at 40 miles per hour approaches a school zone. The car slows to 20 miles per hour. Draw a graph that represents how the speed of the car changes over time.



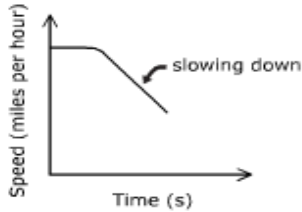
STEP 1

Draw the part of the graph that shows the car moving at 40 mph. Choose a point on the vertical axis to represent 40 mph. Draw a line from that point. Recall that in a speed vs. time graph, constant speed is represented by a horizontal line.



STEP 2

Draw the part of the graph that shows the car slowing down. This means that the car's speed is decreasing which is represented by a line with a negative slope.

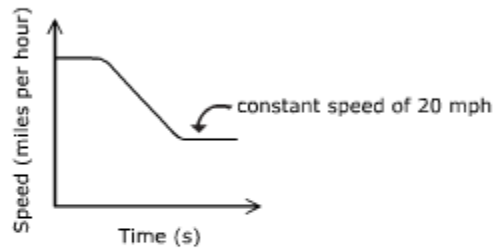


STEP 3

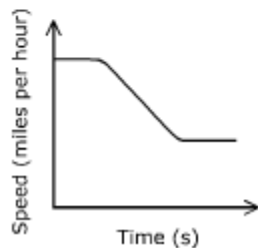
2 OF 2

Draw the part of the graph that shows the car moving at 20 mph. Draw a horizontal line from where the car stopped slowing down.

The height of the line should be half the height of the line representing 40 mph, because 20 mph is half of 40 mph.

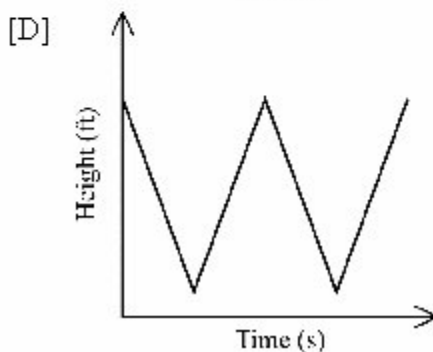
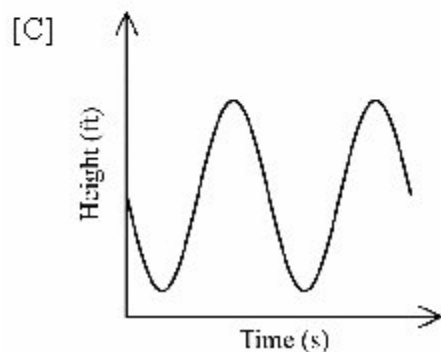
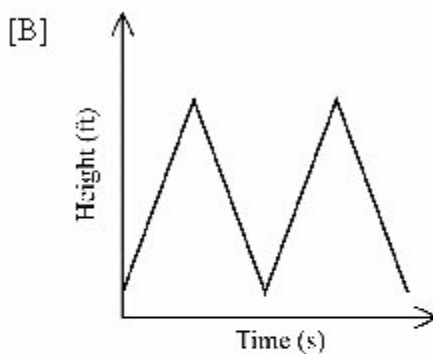
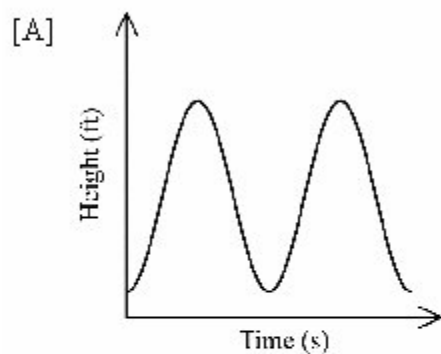


ANSWER



Guided Practice:

Ray got in the car of a Ferris wheel when it was at its lowest position. He started each rotation from a height of 4 feet above the ground. He then traveled to a maximum height of 66 feet before returning to the starting height. Which graph represents Ray's height above the ground during two rotations?



Independent Practice:

Courtney got in the car of a Ferris wheel when it was at its lowest position. She started each rotation from a height of 4 feet above the ground. She then traveled to a maximum height of 50 feet before returning to the starting height. Sketch a graph that represents Courtney's height above the ground during two rotations.

