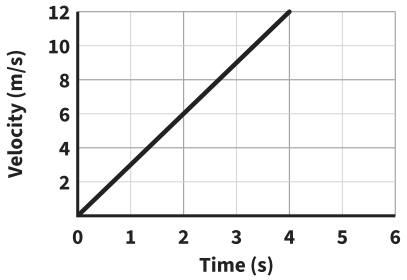
Area under a graph

1

Find the distance travelled.

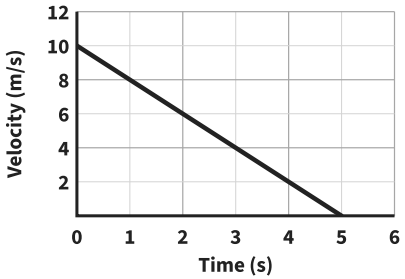


½ × 4 × 12 =

Distance _____ m

2

A car slows down to a stop.
Find the distance travelled.

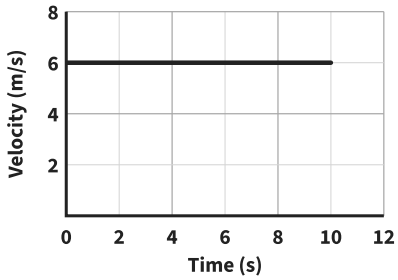


½ ×

Distance _____ m

3 *Notice the change!*

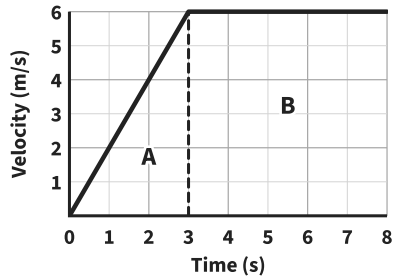
Find the distance travelled.



Distance _____ m

4

Find the distance travelled.



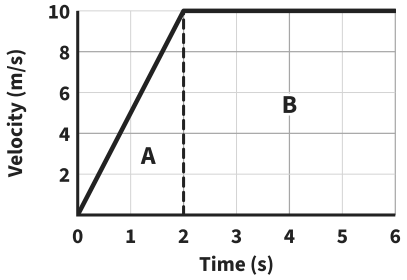
A = ½ × 3 × 6 = 9

B =

Distance _____ m

5

Find the distance travelled.



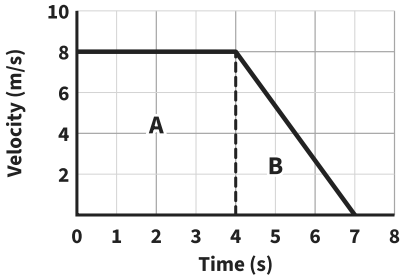
A =

B =

Distance _____ m

6

Find the distance travelled.



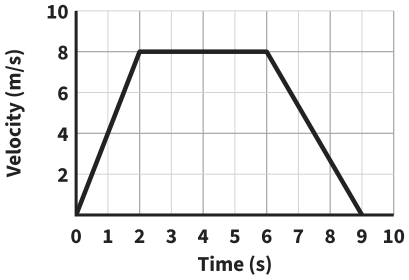
A =

B =

Distance _____ m

7

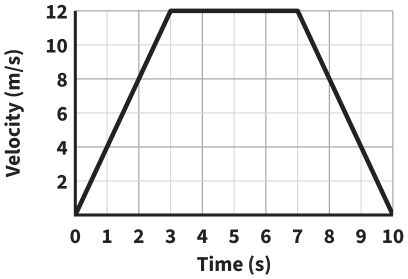
Find the distance travelled.



Distance _____ m

8

Sam says the distance is 10 × 12 = 120 m.
Explain his mistake and find the distance.

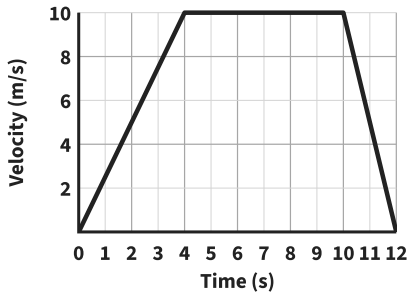


Distance _____ m

Area under a graph *further practice*

9

Find the distance travelled.



Distance _____

10

A car speeds up steadily from rest to 12 m/s in 5 seconds. How far does it travel?

Distance _____

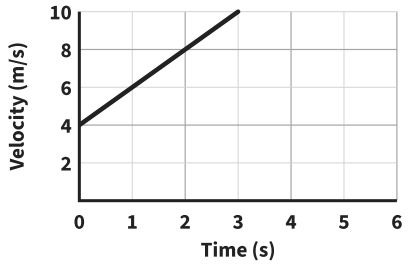
11

A bus speeds up steadily from rest to 8 m/s in 4 seconds. It stays at 8 m/s for 10 seconds, then slows down steadily and stops 2 seconds later. How far does it travel?

Distance _____

12

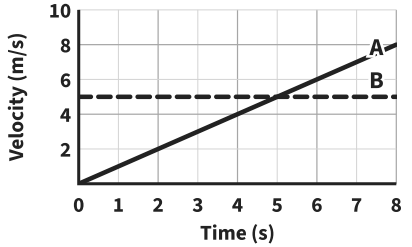
A runner speeds up from 4 m/s to 10 m/s. Find the distance she travels in the 3 seconds.



Distance _____

13

Cyclist A speeds up steadily from rest.
Cyclist B rides at a steady speed.
Who goes further in the 8 seconds, and by how much?



Answer _____

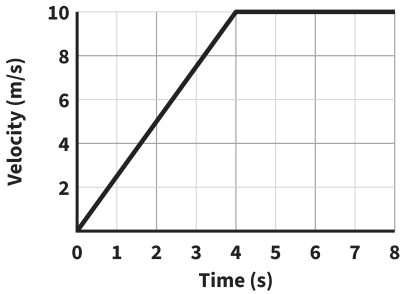
14

A train speeds up steadily from rest for 4 seconds. Then it travels at that speed for 6 seconds. It travels 96 m.
Find its top speed.

Speed _____

15

Find the average speed over the 8 seconds.



Speed _____

16

Mo says a car at a steady 20 m/s for 10 seconds goes further than a car that speeds up steadily from rest to 40 m/s in 10 seconds. Is Mo right?
Show how you know.

Answer _____