

Distance-Time Graphs #1

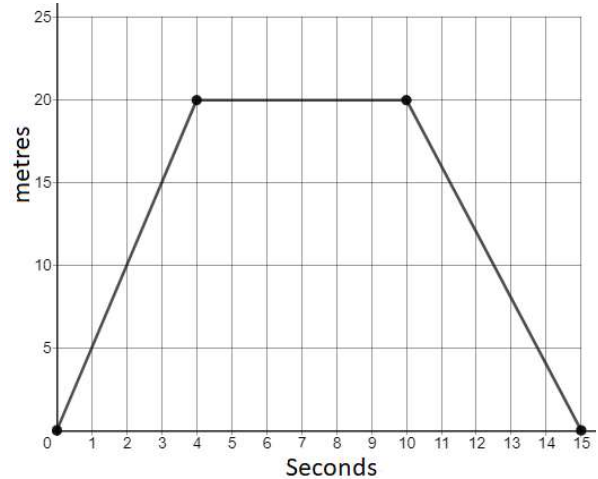
1 To the right is a graph of a leg of Bob's shuttle test.

a) How far is the distance run in each shuttle leg?

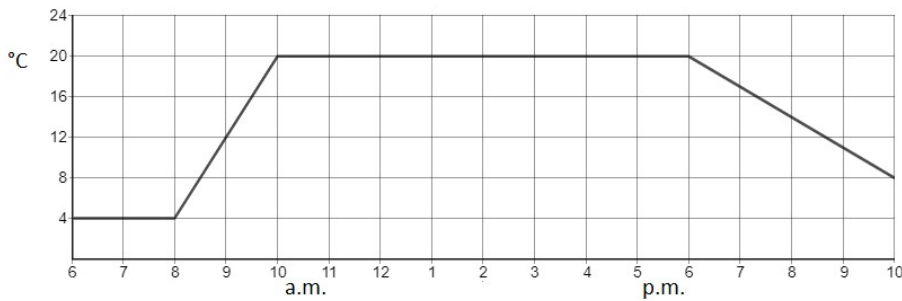
b) How quickly does Bob run at the start?

c) What is he doing at the 8th second?

d) How can we see that he runs back more slowly?



2 Below is a graph of the temperature during a day in Hermione's bookshop.

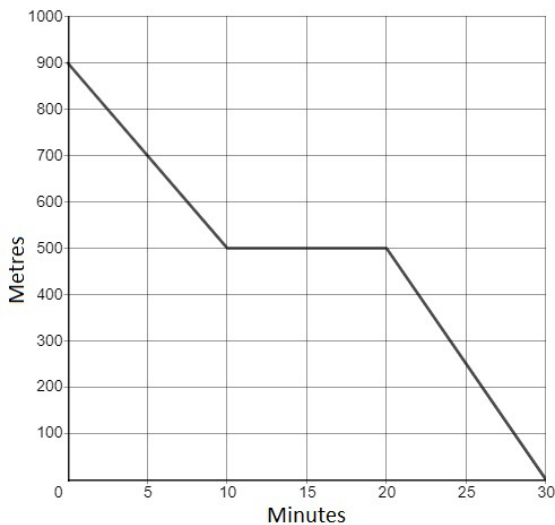


MAN²⁰²⁵
VS
MATHS

a) At what time did the heating in the shop start to work?

b) What temperature does Hermione heat her shop to?

c) How fast does the shop cool down once the heating is turned off?



3 To the left is a graph of Annette's walk from home to school.

a) How far is the school from Annette's home?

b) How quickly does she walk at the beginning?

c) How long does she spend at the dairy on the way?

d) What is her **average** speed from when she leaves home to when she arrives at school?

Answers : Distance-Time Graphs #1

1 To the right is a graph of a leg of Bob's shuttle test.

a) How far is the distance run in each shuttle leg?

20 metres (starts at 0 m, ends at 20 m)

b) How quickly does Bob run at the start?

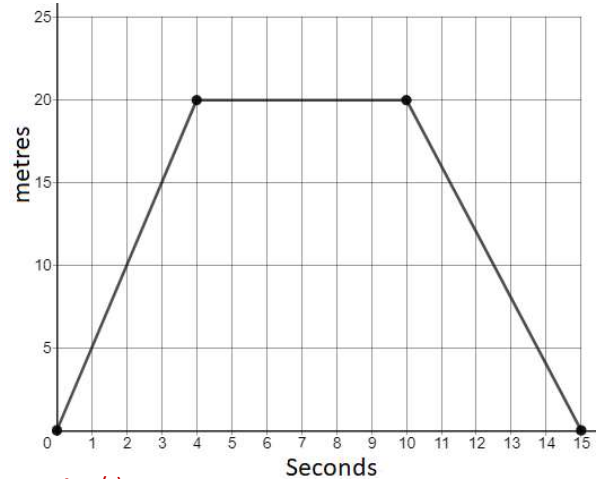
5 m/s (20 m in 4 seconds, then rise over run)

c) What is he doing at the 8th second?

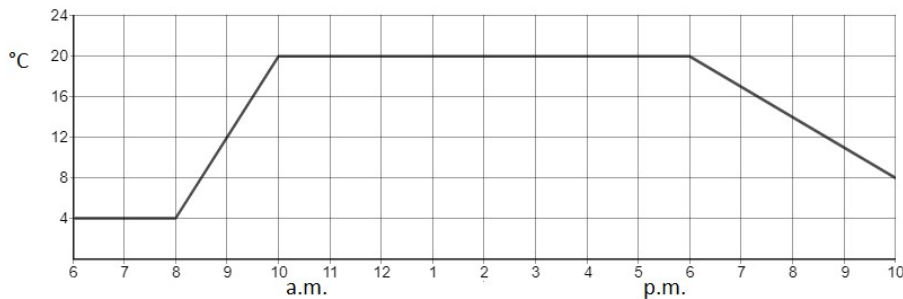
Staying still (the line is flat, he is not moving)

d) How can we see that he runs back more slowly?

The graph's slope is much less steep (or calculate he runs at 4 m/s)



2 Below is a graph of the temperature during a day in Hermione's bookshop.



MAN²⁰²⁵
VS
MATHS

a) At what time did the heating in the shop start to work?

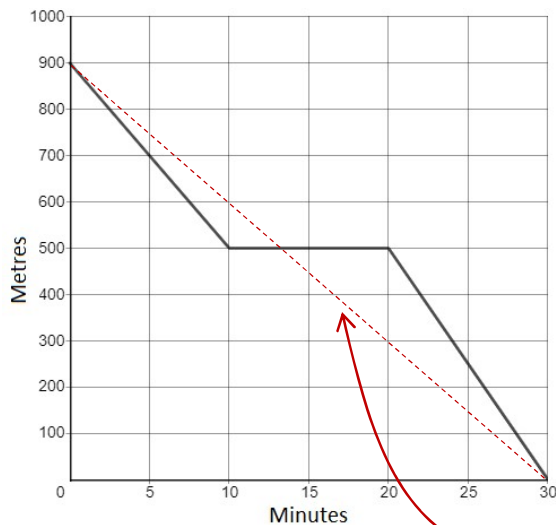
At 8 a.m. (when the temperature starts to go up)

b) What temperature does Hermione heat her shop to?

20°C (where the line goes flat)

c) How fast does the shop cool down once the heating is turned off?

3° per hour (drops 12°, from 20 to 8, in 4 hours, from 6 to 10, then rise over run)



3 To the left is a graph of Annette's walk from home to school.

a) How far is the school from Annette's home?

900 m (distance when she starts)

b) How quickly does she walk at the beginning?

40 m/min (400 m in 10 minutes, then rise over run)

c) How long does she spend at the dairy on the way?

10 minutes (from minute 10 to minute 20)

d) What is her **average** speed from when she leaves home to when she arrives at school?

30 m per minute (900 m in 30 minutes overall)