SMK BAKAR ARANG, SUNGAI PETANI, KEDAH

LATIHAN MATEMATIK TINGKATAN 4

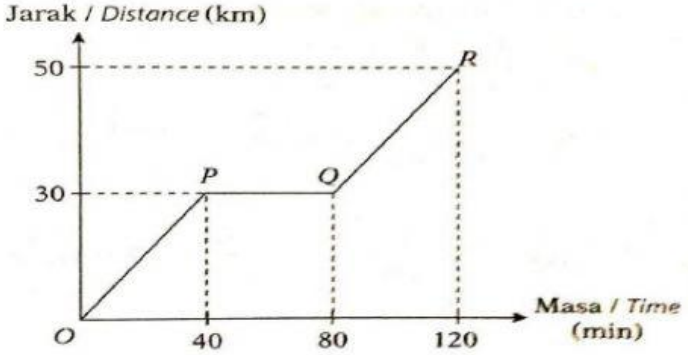
BAB 7: GRAF GERAKAN / GRAPHS OF MOTION

DISEDIAKAN OLEH : CG NOR AZLINA BT ISMAIL

NAMA:..... KELAS :.....

1 Diberi graf jarak-masa bagi pergerakan suatu objek. Objek itu bergerak dari O ke R dalam tempoh 120 minit.

Given the distance-time graph for the motion of an object. The object moves from O to R for a period of 120 minutes.



(i) Nyatakan tempoh masa, dalam minit, ketika objek itu berhenti seketika.

State the duration of time, in minutes, when the object is stationary.

(ii) Hitung laju, dalam km j^{-1}, objek itu dari O ke P.

Calculate the speed, in km h^{-1}, of the object from O to P.

(iii) Cari jarak, dalam m, yang dilalui oleh objek itu dalam 40 minit terakhir.

Find the distance, in m, travelled by the object in the last 40 minutes.

JAWAPAN:

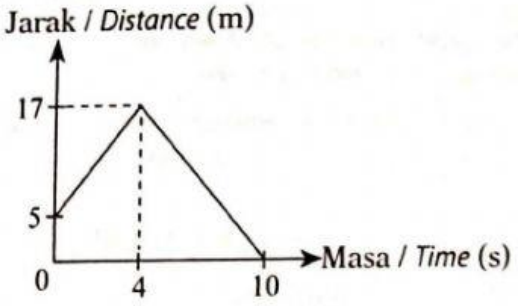
(i) minit/minutes

(ii) Kmj^{-1} / kmh^{-1}

(iii) m

LIVEWORKSHEETS

2 Diberi graf jarak-masa bagi suatu zarah.
Given the distance-time graph of a particle.



Hitung / *Calculate*

(i) laju dalam 4 saat pertama,
the speed in the first 4 seconds,

(ii) kadar perubahan jarak dalam 6 saat terakhir,
the rate of change of distance in the last 6 seconds,

(iii) purata laju bagi seluruh perjalanan itu.
the average speed for the whole journey.

JAWAPAN:

(i) ms^{-1}

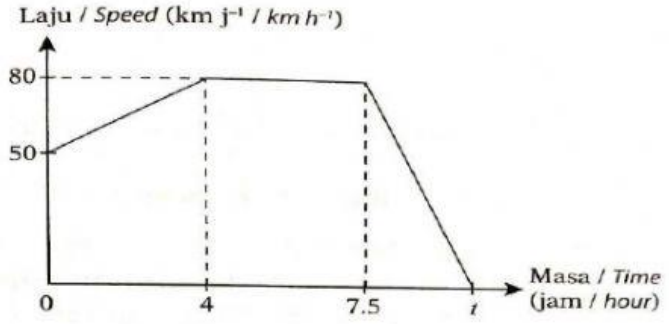
(ii) ms^{-1}

(iii) ms^{-1}

LIVEWORKSHEETS

3 Rajah 1 menunjukkan graf laju-masa bagi pergerakan sebuah kereta dalam tempoh t jam.

Diagram 1 shows a graph of the speed-time graph of a car within t hours.



Rajah 1 / *Diagram 1*

(i) Nyatakan tempoh masa, dalam jam, apabila kereta itu bergerak dengan laju seragam.
State the length of time, in hours, when the car was moving at a uniform speed.

(ii) Hitungkan kadar perubahan laju, dalam km j^{-2}, kereta itu dalam tempoh 4 jam pertama.
Calculate the rate of change of speed, in km h^{-2}, of the car in the first 4 hours.

(iii) Hitung nilai bagi t, dalam jam, jika seluruh pergerakan kereta itu ialah 600 km.
Calculate the value of t, in hours, if the whole journey of the car is 600 km.

JAWAPAN

(i) Jam/hours

(ii) km j^{-2}/ km h^{-2}

(iii) Jumlah Jarak / total distance =

t =

LIVEWORKSHEETS