

GRADE 11

SUBJECT: MATHEMATICS

WEEK 7: LESSON 2

TOPIC: RELATIONS FUNCTIONS AND GRAPHS

SUB-TOPIC: distance speed time graph.

OBJECTIVES:

Draw and interpret distance-time graphs and speed-time graphs(straight line only)to determine: (a) distance(b) time(c)speed

Content:

1. A car travels a distance of 225 km in 4 hours. Calculate its average speed for the journey.
2. A train travelled 500km at an average speed of 80km/h. How long did the journey last?
3. A man walks for 3 hours at an average speed of 12km/h. How far did he walk?
4. A vehicle travels 60m at a constant speed of 25ms^{-1} . Estimate the time taken for the journey.
5. A train travels for $\frac{1}{2}$ hour at a constant speed of 30ms^{-1} . Calculate the distance travelled by the train.

Solution:

1. $S = 56 \frac{1}{4} \text{ kmh}^{-1}$
2. $T = 6 \frac{1}{4} \text{ h}$
3. $D = 36\text{km}$
4. $T = 2.4\text{h}$
5. $D = 54\text{km}$

Reference: Mathematics a Complete Course Vol 2.