The National Orthodox School Shmaisani

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Name: **Title: Speed Worksheet**

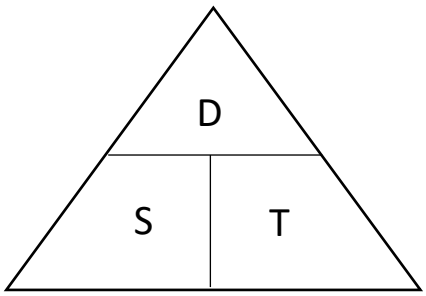
Grade-Section: 7- ……CS

Objectives:

1- Define Speed.
2- Calculate the speed.
3- Revise unit conversion.

Speed is the measure of how fast an object is moving. The units of speed are either m/s (meters per second) or km/h (kilometer per hour).

We calculate speed using the following triangle:



$$\text{Speed} = \frac{\text{Distance}}{\text{Time}}$$

$$Distance = Speed\ x\ Time$$

$$Time = \frac{Distance}{Speed}$$

Unit Conversion:

Keep in mind the following conversions

1 km = 1000 m

1 hour = 60 min, 1 min = 60 seconds, 1 hour = 3600 seconds

Show your work please and answers rounded to 2 d.p

Core: (please solve the following five questions)

Question 1) A sprinter runs 120 meters down athletics track in 10 seconds, how fast is he travelling in m/s?

Question 2) A man walks 2km from a bus station to his work taking him 3 hrs, how fast is the man walking at in km/h?

Question 3) A police car drives 124 km in 3 hours. What is its average speed in kilometers per hour?

Question 4) An airplane flies 3500 km in 2 hours. What is its average speed in kilometers per hour?

Question 5) A cyclist takes 30 seconds to travel 375 meters. What is its average speed in meters per second?

Show your work please and answers rounded to 2 d.p

Intermediate: (Solve 4 of the following 5 questions)

Question 6) A car is travelling 300 km along a road in 10800 seconds. How fast is it travelling in:

a. Km/s?

b. Km/h?

c. m/s?

Question 7) An airplane flies with a constant speed of 840 km/h. How far can it travel in 5.3 hours?

Show your work please and answers rounded to 2 d.p

Question 8) Noah roller skates with a constant speed of 4 m/s. How far can he travel in 35.7 seconds?

Question 9) Julia drives her car with a constant speed of 71 km/h. How long will she take to travel a distance of 16.33 kilometers?

Question 10) A taxi hurries with a constant speed of 105 km/h. How long will it take to travel a distance of 207.9 kilometers?

Show your work please and answers rounded to 2 d.p

Advanced: (Solve 3 of the following 4 questions)

Question 11) Kato cycles at a third of the speed of his friend Luke, who takes 3 minutes to travel 1.8 km, what is Kato's speed in m/s?

Question 12) An airplane flies 27 km in 36 minutes. What is its average speed in kilometers per hour?

Question 13) Abigail rides her horse with a constant speed of 14 m/s. How far can she travel in 40 minutes?

Question 14) An airplane flies for 1 1/2 hours with a constant speed of 880 km/h and then for another 30 minutes with a constant speed of 800 km/h. What distance did it go?