868

868TUTORS

TUTORS

Preparation for

High School Mathematics

Measurement

(Speed, Distance, Time)

Math

Student Name: _____

Student ID: _____

Date: _ _ / _ _ / _ _ _ _

Total Score:

Highest Score:

Tutor's Comments:

Question 1

A sprinter from St. Kitts and Nevis enters a regional 100 m race. The sprinter covers a distance of 100 m in 9.87 seconds.

(a) Calculate his average speed for the race.

(2 marks)

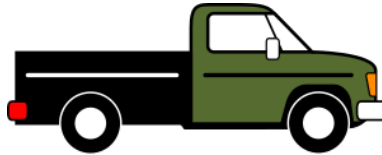(b) What should his average speed be to complete the 100 m in 9.59 seconds?

(2 marks)

(c) The sprinter's average speed for a 200 m race is 10.21 m/s. Calculate the time he takes to cover 200 m.

(2 marks)

Question 2

A pickup truck travels at 65 kilometres per hour on a highway in Trinidad.

(a) Calculate the time taken, in minutes, to cover 30 km at this constant speed.

(1 mark)

(b) Calculate the time taken, in minutes, to cover 30 km at a constant speed of 80 km/h.

(2 marks)

(c) How much time is saved by travelling at 80 km/h instead of 65 km/h over a distance of 30 km?

(2 marks)

Question 3

The chart below shows the 2 kilometre sprint times of some speed boats in a race off the coast of Trinidad.

Name of Speedboat	Time
Icacos Fire	51 seconds
Erin Dragon	50 seconds
St. Patrick Speedster	49 seconds
Mr. La Brea	45 seconds

(a) Calculate the average speed (in km/h) of Mr. La Brea during the sprint.

(2 marks)

(b) Calculate the average speed (in km/h) of Icacos Fire during the sprint.

(2 marks)

(c) The crew of Mr. La Brea want to achieve a time of 43 seconds in the next race. What should their average speed in km/h be?

(3 marks)

Question 4

The table below indicates the times recorded by five horses at a horse racing event, on the beach, in Cedros, Trinidad. The race distance is 1.5 km.

Name of Horse	Time
Palo Seco Spirit	72 seconds
Apache	73 seconds
Survivor	74 seconds
Coromandel Commander	68 seconds

(a) Calculate the average speed (in m/s) of each horse.

(2 marks)

(b) Complete the table below to show the position of each horse in the race.

Place	Name of Horse
1st	
2nd	
3rd	
4th	

(2 marks)

<u>*Question 5*</u>

A ferry leaves Port of Spain with passengers headed for a family day at Columbus Bay. The distance to be covered is 80 km.

(a) Calculate the average speed (in km/h) the ferry has to travel to arrive in 1 hour and 15 minutes.

(2 marks)

(b) The ferry leaves Port of Spain at 6 am but arrives at its destination at 7:30 am. Calculate the average speed of the ferry in this case.

(2 marks)

END OF WORKSHEET