Investigation 1.4
A and B

Name __Ms. Navarra's Solutions__

Date ___9-22-16___ Hour _____

Chincoteague to Williamsburg
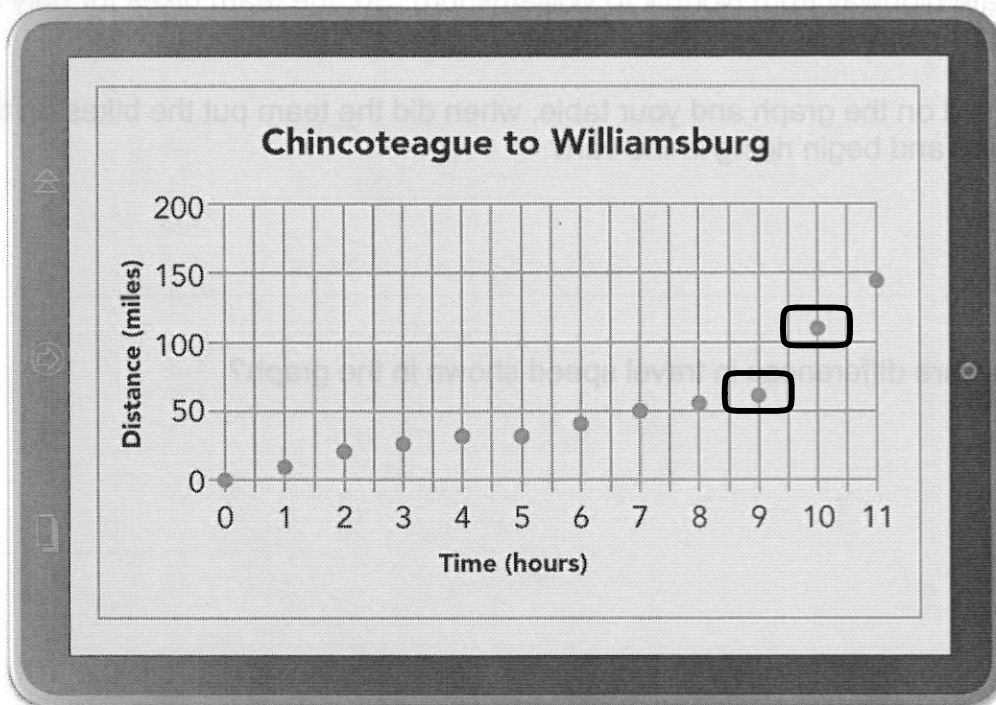
What are the two variables compared on the graph? ___Time (hours)___ , ___Distance (miles)___

Make a table of the (*time, distance*) data shown on the graph. Don't forget lines in between intervals.

Time (hours)	0	1	2	3	4	5	6	7	8	9	10	11
Distance (miles)	0	10	20	25	30	30	40	50	55	60	110	145

1) What does the point with the coordinates (3, 25) tell about the cyclists' progress?

   After 3 hours, the cyclists were 25 miles away from Chincoteague.

2) Circle the points on the graph that have the coordinates (9, 60) and (10, 110).

   What do those coordinates tell about the cyclists' time, distance, and speed?

   After 9 hours, the cyclists were 60 miles into their trip. After 10 hours, the cyclists were 110 miles into their trip. Speed: 10-9 = 1 hour   110-60 = 50 miles   Speed = 50/1 = 50 mph

3) What was the cyclists' average speed in miles per hour for the trip? ___About 13 mph___

   How can you find this from the graph?
   On the graph, I noticed that the cyclists finished their 145 miles trip in 11 hours. This showed with a coordinate point of (11,145).
   How can you find this from the table?

   At the end of the table, I noticed that the cyclists finished their trip in 11 hours. Since they were on a 145 miles trip, I divided 145 by 11. This has an average speed of about 13mph.

The team has to cross the Chesapeake Bay Bridge and Tunnel. Then, they travel on an interstate highway from Norfolk to Williamsburg. So, the team bikes for only the first part of the trip.

1) Based on the graph and your table, when did the team put the bikes on the trailer and begin riding in the van?

The team began riding in the van once they were 9 hours into their trip. I know this because on the graph, it shows the distance increasing quickly with a steeper pattern of change. Vans drive faster than cyclists can ride, so I knew this was the point that they began riding in the van.

4) How are differences in travel speed shown in the graph?

The cyclists are going at a steady pace until about 9 hours because the pattern does not show a steep change (increase in speed) at the beginning. The bikers are going at their own pace of about 13 mph. Then, the van is moving at an average speed of 50mph. If I were to connect the points, the line would show this pattern.