

Name: Mr. Hedges
 Block: 1-3; 4-5; 8-9

Date: Monday
 Due Date: Friday

Problem of the Week Demo: Awesome Vacation

Please respond fully to the following question, showing or explaining how you got your answer. Your response will be graded using the NJ State 3-point scoring rubric and will count as one quiz grade. You have the entire week to complete it, please see me if you need help.

Mr. Hedges gets on a plane to go to San Diego, which is 2,500 miles away. He arrives in San Diego International Airport after flying for 6 hours. After touring the San Diego Zoo, catching a Padres game, and enjoying Balboa Park, he wins a flight to Dallas on a supersonic jet. The jet travels at 800 miles per hour and it only takes him 90 minutes to arrive in Dallas.

Part A: What was the total distance that Mr. Hedges traveled to get to Dallas?

$$\begin{array}{r} 2,500 \text{ mi} \\ + 1,200 \text{ mi} \\ \hline 3,700 \text{ mi} \end{array}$$

Destination	Time	Distance	Speed
San Diego	6 hr	2,500 mi	416.6 mph
Dallas	1.5 hr	1,200 mi	800 mph

$$90 \text{ min} = 60 \text{ min} = 1.5 \text{ hours}$$

(min in an hour)

$$\frac{\text{miles}}{\text{hours}} = \frac{2,500 \text{ mi}}{6 \text{ hr}} = \frac{x \text{ mi}}{1 \text{ hr}}$$

$$6x = 2,500$$

$$\div 6 \quad \div 6$$

$$x = 416.\bar{6} \text{ mph}$$

Mr. Hedges traveled 3,700 miles to get to Dallas.

$$\text{Distance} = \text{Rate} \cdot \text{Time}$$

$$D = 800 \cdot 1.5 = 1,200 \text{ mi}$$

Part B: What was the average speed that Mr. Hedges traveled at during his entire trip?

$$\text{Distance} = \text{Rate} \cdot \text{Time}$$

$$7.5 = 3,700 \text{ mi} = R \cdot 7.5$$

(total mi) (total hr)

$$493.\bar{3} = R$$

mph

During his entire trip, Mr. Hedges traveled at an average speed of 493.3 miles per hour.