Answer on Question 59232, Physics, Mechanics, Relativity

Question:

A driver does a round trip to Ibadan from Lagos, returning to his take-off point in five hours. The distance of Ibadan from Lagos is $130\ km$. What is his average velocity?

a) $52\ km/h$

b) $26\ km/h$

c) $0\ km/h$

d) $104\ km/h$

Solution:

The average velocity of an object is defined as the displacement per unit time:

$$v = \frac{displacement}{time\ taken}.$$

Because the driver returns to his take-off point, the displacement is equal to zero and we get:

$$v = \frac{displacement}{time\ taken} = \frac{0\ km}{5\ h} = 0\ \frac{km}{h}.$$

Answer:

c) $0\ km/h$