

SOLVING YOUR PROBLEMS IN MOTION

Activity on the Energy of Motion

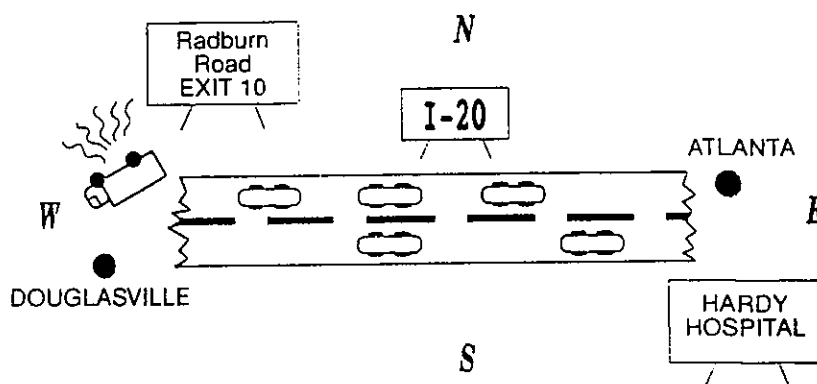
Directions

Use the information and formulas discussed in the content of *Let's Get Movin'* to solve the following motion problems. Please show your work for each problem in addition to the final answer. If you need additional room for your computations, you may use the back of the worksheet.

1. Read the information below and consult the map to answer the following questions about this paragraph:

Joe works for the Emergency Medical Technician (EMT) team in Atlanta. He is often called on to use his superior driving skills when rushing to the scene of an accident and then delivering the patient back to Hardy Hospital in Atlanta. On May 14, Joe received a call that a car collision had occurred on Radburn Road in Douglasville. Joe knew he must cover the 25-mile distance in as little time as possible. He jumped into his car at 10:00 P.M. and arrived at the scene of the accident at 10:15 P.M. He spent from 10:15 to 11:00 P.M. getting the patient ready to transport. At 11:00 P.M., Joe jumped into his EMT vehicle and started back toward Atlanta with his patient. As he started the engine to leave the scene of the accident, he went from 0 to 60 miles per hour in 2.5 seconds. He had almost made it back to the hospital when a green Volkswagen darted in front of him. Joe slammed on the brakes and went from his 120-mile-per-hour speed to stop in 4 seconds, barely avoiding an accident. Finally at 11:20, Joe arrived safely at Hardy Hospital with his patient.

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Questions

1. Give the speed of the trip from Atlanta to Douglasville in (A) miles/min, and (B) miles/hour.
2. Give the speed of the trip from Douglasville back to Atlanta in (A) miles/min, and (B) miles/hour.

