



Fleet Manager

STEM Sims

Lesson 1: Miles per Gallon

The price of gasoline is one of the main factors that determine the operating costs of a vehicle. For a company with a large fleet of vehicles, a small rise in the price of fuel can translate into much higher operating costs for the company and much lower profits. Can you determine a vehicle’s fuel mileage? Fuel up and start your engine.

Doing the Science

1. Start the Fleet Manager Simulation by clicking on the “Sim” tab.
2. Click on one of the vehicles in the fleet.
3. Click the “Use” button, then the “Drive” button. When the vehicle completes the route, click the “Status” button.
4. Record the Vehicle name, Total Distance Driven, and Fuel Used in Table 1.
5. Calculate and record in Table 1 the Miles per Gallon rating of the vehicle.
6. Close the box by clicking the “X” in the upper right-hand corner, and then click the “Fleet” button.
7. Select a different vehicle and repeat steps 3-6. Test a total of five different vehicles.

Table 1.

Vehicle	Total Distance Driven (miles)	Fuel Used (gallons)	Miles per Gallon (mpg)

Do You Understand?

1. Which vehicle that you tested was the most fuel efficient? Please explain why you chose this vehicle.

2. Find out the current average price of gasoline per gallon in your area. Based on this value, determine how much the fuel would have cost to complete the trip for the most fuel efficient vehicle. Please show the work for your calculation.