NAME _____ DATE _____ PERIOD _____

6-1

Real-Life Career Activity

Fleet Supervisor

Fleet supervisors are managers who are responsible for ensuring that company vehicles operate correctly. The supervisor ensures that each vehicle receives its required maintenance and keeps a record of the repairs each vehicle has had.

Some fleet supervisors keep records of a vehicle's gasoline consumption—the amount of gasoline a vehicle uses to travel a fixed number of miles—because a sudden increase in gasoline consumption may signal that the vehicle needs repair. A fleet supervisor can use the formula below to calculate the gasoline consumption of a vehicle.

$$C = \frac{m}{g}$$

In this formula, C is the consumption of gas in miles per gallon, m is the number of miles traveled, and g is the amount of gasoline used.

Suppose a vehicle travels $149\frac{8}{10}$ miles on $10\frac{1}{10}$ gallons of gasoline. What is the gas consumption of the vehicle? Round each mixed number to the nearest whole number before you calculate.

$m = 149\frac{8}{10}$ miles, which rounds to 150 miles

$g = 10\frac{1}{10}$ gallons, which rounds to 10 gallons

$C = \frac{150}{10}$

$= 15$

The vehicle travels about 15 miles per gallon.

Solve. Round each mixed number to the nearest whole number before you calculate.

1. Calculate the gas consumption of a vehicle that travels $72\frac{1}{3}$ miles on $5\frac{7}{8}$ gallons of gasoline.

2. Calculate the gas consumption of a vehicle that travels $79\frac{9}{10}$ miles on $8\frac{12}{100}$ gallons of gasoline.

3. Last month, a vehicle traveled 14 miles per gallon. This month, the vehicle travels 10 miles per gallon. What could this change tell a fleet supervisor?