NAME   DATE   PERIOD

Lesson 8 Summary

Maps with scales are useful for making calculations involving speed, time, and distance. Here is a map of part of Alabama.

Suppose it takes a car 1 hour and 30 minutes to travel at constant speed from Birmingham to Montgomery. How fast is the car traveling?

To make an estimate, we need to know about how far it is from Birmingham to Montgomery. The scale of the map represents 20 miles, so we can estimate the distance between these cities is about 90 miles.

Since 90 miles in 1.5 hours is the same speed as 180 miles in 3 hours, the car is traveling about 60 miles per hour.

time (hours)	distance (miles)
1.5	90
3	180
1	60

$\cdot 2$ $\cdot \frac{1}{3}$ $\cdot 2$ $\cdot \frac{1}{3}$

Suppose a car is traveling at a constant speed of 60 miles per hour from Montgomery to Centreville. How long will it take the car to make the trip? Using the scale, we can estimate that it is about 70 miles. Since 60 miles per hour is the same as 1 mile per minute, it will take the car about 70 minutes (or 1 hour and 10 minutes) to make this trip.