

Computing the Fuel Needed

EXAMPLE

Jordan is planning a 470 mile trip. His car's EPA rating is 34 mpg on the highway. How many gallons of gas will he require for this trip? Round to the nearest gallon.

$$\begin{array}{r} 13.8 \approx 14 \text{ gallons needed for the trip} \\ 34 \overline{) 470.0} \text{ Miles} \end{array}$$

Jordan will need about 14 gallons of gas for this trip.

Directions Find the amount of fuel needed for each trip. Round your answer to the nearest gallon.

	Distance	Mileage Rating	Amount of Fuel
1.	140 miles	20 mpg	_____
2.	238 miles	21 mpg	_____
3.	1,205 miles	19 mpg	_____
4.	387 miles	17 mpg	_____
5.	446 miles	18 mpg	_____
6.	968 miles	22 mpg	_____
7.	1,097 miles	35 mpg	_____
8.	488 miles	24 mpg	_____
9.	316 miles	16 mpg	_____
10.	1,024 miles	34 mpg	_____
11.	349 miles	36 mpg	_____
12.	5,278 miles	28 mpg	_____
13.	472 miles	14 mpg	_____
14.	885 miles	40 mpg	_____
15.	21,976 miles	37 mpg	_____
16.	6,778 miles	28 mpg	_____
17.	890 miles	25 mpg	_____
18.	482 miles	30 mpg	_____



Computing Travel Time

EXAMPLE Emily Elizabeth plans a trip of 410 miles. She expects to be able to average 45 miles per hour. How much time should Emily Elizabeth expect the trip to take?

Step 1 Divide the miles by the average speed.
Round to the nearest hundredth of an hour.

$$\begin{array}{r} 9.11 \text{ Hours} \\ 45 \overline{) 410.00} \text{ Miles} \end{array}$$

Step 2 Convert the decimal part of the quotient to minutes by multiplying it by 60.

$$\begin{array}{r} .11 \text{ Hour} \\ \times 60 \text{ Minutes per hour} \\ \hline 6.60 \approx 7 \text{ minutes} \end{array}$$

Emily Elizabeth's trip should take about 9 hours and 7 minutes.

Directions Find the travel time for each of these trips.
Round your answer to the nearest minute.

	Distance	Average Speed	Estimated Time for Trip
1.	110 miles	27 mph	_____
2.	176 miles	57 mph	_____
3.	342 miles	50 mph	_____
4.	85 miles	35 mph	_____
5.	469 miles	55 mph	_____
6.	308 miles	51 mph	_____
7.	232 miles	33 mph	_____
8.	455 miles	50 mph	_____
9.	678 miles	45 mph	_____
10.	799 miles	36 mph	_____
11.	403 miles	42 mph	_____
12.	908 miles	46 mph	_____
13.	264 miles	51 mph	_____
14.	108 miles	53 mph	_____
15.	55 miles	38 mph	_____
16.	770 miles	46 mph	_____

